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Manufacturers' Record.

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BALTIMORE, DECEMBER 16, 1898.

Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, has rounded out nearly a generation in that position. During that time he has become an authority, recognized in this country and abroad, upon matters relating to the cotton trade, and his statistical work in that line is studied carefully every week, while his annual review of the trade is preserved as the standard record of the movements of cotton.

The Southern Policy.

Upon the eve of a great industrial era in which the South is to hold a conspicuous position, if its opportunities are realized, the Texas Trade Review, of Dallas, taking a broad view of Southern possibilities and of the agencies which are expected to assist materially in their realization, asserts that the South must change its policy of selling goods in the rough and export them in the finished condition. On this point it adds:

There have been some journals—industrial journals—that for a long while have been saturating the Southern mind, and the Northern as well, with this idea, and sounding the notes of warning to prepare our households accordingly. Chief among these is affords Texas Trade Review to accord highest praise to the Baltimore Manufacturers' Record. Its alertness, in season and out of season, to vigilantly watch and promptly to advise the South in frank and fearless way about all that promised to be for its greatest welfare is worthy of the highest appreciation by the people of the section it thus so faithfully serves. Not long since Texas Trade Review heard one of our local political and economic writers say that he "never saw a copy of that weekly among his exchanges that he did not feel like taking off his hat to it." This was high praise and intensely sincere. Perhaps no journal has equalled the important work it has done with such splendid results. It has called attention to the possibilities and opportunities, to the actualities of the Southland for the past several years. And it has so honestly done it in its arduous that the great financial success and national reputation it has achieved have been well merited. What that leading, influential factor has accomplished for the Atlantic States, Texas Trade Review hopes to do for Texas at least, a Commonwealth about as large as the Manufacturers' Record's Southern seaboard constituency. It is these industrial journals that are such prime agencies in the developing of the industrial resources of a section. It is their special province, as well as their pride. Mr. Edmonds has set an example that may well and profitably be followed by others patriotically as well as practically imbued like himself.

These words of a young and vigorous contemporary are very gratifying

to the Manufacturers' Record. Such words are an encouragement to continued efforts along the lines that have been distinctively pursued by the Manufacturers' Record, and which, we believe, tend directly to the full development of the immense resources of the South. That we have such a sturdy and enterprising ally in Texas augurs well for that great and growing State.

Enlarging Our Trade.

In this week's Manufacturers' Record are letters from special correspondents, one in Berlin and one in Havana, of special importance for the industrial interests of the South and other parts of the country. The letter from Berlin discusses the prospects for American iron and steel in the European market. The point is made that, although the financial press of Germany are apprehensive on the subject, the Germans have not yet realized how intense American competition can become. America's productive capacity is only about two-thirds realized, and the scarcity of ocean freight room that has obstructed exports from Alabama to some extent cannot last long. Ocean prices, too, are expected to come lower with the great activity in all the ship-building yards of the world. Furthermore, the correspondent points out iron prices are still rising in Germany and in England, whereas they are shading off with us, and beyond all this again, the supplies of the Old World are becoming exhausted in places, notably so in Spain, the source of the cheapest and best ores in Europe. The correspondent also points to the position gradually being assumed by the United States in international banking as one of the indications that trade is following pig iron. This correspondence deals with one of the basic elements of industrial life in the South. Correspondence from Cuba suggests some of the directions into which diversified industries may go. It shows that of the 369 central factories grinding sugar before the war, 107 have been burned, and that repairs and rebuilding will represent an outlay of about \$5,000,000, which opens a field for American iron works, contractors for machinery and construction engineers. It is thought that the houses of these factories, which were formerly of timber chiefly, will probably be replaced by steel and iron structures. Electric plants will also have to be rebuilt, and many sugar-houses will be enlarged with the revival of activity. The correspondent suggests that American manufacturers should establish in Cuba offices as branch houses and make a careful study of the situation, so as to sell their machinery directly and avoid the mistakes due to the former practice of sales on commission. Manufacturers should look into this matter closely, and while they are watching the progress made by iron ore and steel in European countries and the revival of commerce between the West Indies and the United States, in which South-

ern ports should largely share, they should see to it that close connection be made between the buyers and sellers of material for the restoration and development of Cuba.

For National Progress.

Probably the broadest trade organization in our country and the one which today is exerting the widest influence for the advancement of the business interests of all sections is the National Association of Manufacturers. Comparatively few people except the members who are brought into close and constant touch with its workings fully understand the scope of this organization or realize its beneficial influence upon our trade interests, especially in the development of our growing export of manufactured goods. The annual gatherings of this great body have become noted for the character of attendance and for the influence exerted upon the nation's thought. This year the association will hold its annual meeting in Cincinnati, a central point of ready access from all sections. In view of the proximity of Cincinnati to the South, and of the great importance of the South being liberally represented in this organization, the Manufacturers' Record would urge the business men of this section to attend this meeting and to become intimately identified with its work. It is national in its scope, national in its workings, and should number among its members every leading manufacturer of the country, South as well as North and West. Today, when America's power as the manufacturing country of the world is coming into general recognition, and when the South is pressing to the front in setting the world's price for pig iron and cotton goods, it behooves our people to keep in close touch with an organization which is accomplishing so much for the extension of our foreign trade, for the construction of the Nicaraguan canal and for the creation by Congress of a Department of Manufactures and Commerce. In the annual meeting at Cincinnati, where probably a thousand of the foremost men of America's manufacturing interests will be in attendance, the Manufacturers' Record hopes to see the South represented by at least a few hundred of its most progressive industrial leaders.

It is fortunate for the country, and for the South especially, that the officers of this association are men of broad national views and as appreciative of the South's advantages as our own people. President Search and his able assistant, Mr. Sanborn, know the South intimately, understand its strong position and take a deep interest in its development. Much of the work which they have done, and especially that in behalf of the Nicaraguan canal, will in the long run probably benefit the South more than any other section, but this fact does not deter them. Whatever is for the best interests of America's manufacturing interests, the creation of

new foreign markets, the advancement of our commercial marine, has the co-operation of this association, without regard to its bearing on any particular section.

Canning in the South.

While investors are seeking opportunities for the use of capital upon a large scale in industrial undertakings in the South, a large portion of the progressive journalism of the South is carrying on a vigorous campaign in favor of the establishment of small local industries for the purpose of diversifying manufactures as auxiliary to diversified farming. One of the plans which at present appears to be popular is the building of canneries, and here and there are indications that the success of such establishments already in operation will encourage the building of others.

It is announced that a canning establishment at Fruithurst, Ala., to have a capacity of 3000 cans daily, will be built in time for next season's fruit crop, and that it is expected that a plant for the manufacture of cans will also be built. The Dalton (Ga.) cannery packed during the past season 25,000 cans of tomatoes and 150,000 cans of peaches. Alluding to this the Marietta Journal says:

When it is taken into consideration of the many peach orchards around Marietta, it would seem to us to be a wise business move to establish a canning factory in Marietta by the time next season arrives. Like the Dalton factory, it need not confine itself to the canning of fruits, but vegetables as well, and it could be made to pay equally as well. We learn there will be a crate factory started by one of our citizens, so let us have the canning factory also. It is such small industries as these that give life and prosperity to a town. The more we have of them the better.

It is also announced that the Bayou le Batre Canning Co., now operating in Mobile county, Alabama, with a paid-up capital of \$25,000, will be incorporated by a company which proposes to increase its plant so as to utilize to the fullest extent the products of Mobile bay and of the truck garden industry on the western shore of the bay. Alluding to this industry the Mobile Register says:

Mr. Phelan Dorian and his associates during the past three years have broken ground, as it were, for an enterprise, which will, when supported by the capital their experiments have found to be necessary, pay a handsome dividend upon investment and furnish remunerative employment for the rapidly increasing population that the climate and natural advantages of the lower bay shore have attracted and are attracting to one of the most desirable points upon the Gulf coast. The Bayou le Batre Canning Co. has made money in its operation so far, coving oysters in the oyster season and packing vegetables and fruit, and curing or canning the fine fish food so abundant in the Gulf waters. Its limited means have resulted only in experimental ventures heretofore, but these ventures have been attended with such success as to demonstrate that the business can be made profitable. In addition to packing oysters, Mr. Dorian has made a market for canned crabs, canned redfish, canned shrimp, the smelt of the Gulf waters, salted mullet and fish roe. He has also learned that the offal of his industries, oyster shells, fish cleanings and inedi-

ble fish, can be turned into by-products—fertilizer and fish oil—that are in steady demand and find ready sale. The Bayou le Batre Company's product is now sold in every part of the Union and in South America, Central America, Mexico and Cuba. The fish-packing industry in this section affords the cheapest wholesome fish food in the markets of this country.

Here are some distinct facts proving the value of canning factories to the South. They are of positive benefit to the farmer in widening the market for his products. The position of the South as the market garden of the country is well assured, but the season during which the various fruits and vegetables have ready sale is limited, and consequently a surplus of products is likely to exist every year as the acreage of truck farms increases. Northern cities, however, have reaped great advantage in providing by canning food for the millions during the season when the varieties of fresh fruits and vegetables are few. There is no reason why Southern communities close to the farm should not share their advantage. There is every reason from the agricultural, industrial and business standpoint why the examples quoted should be duplicated many times.

A Balk Upon Enterprise.

The tangle into which the negotiations between the New Orleans levee board and the Illinois Central Railroad officials have come through the failure of the former to accept the propositions of the latter regarding the railroad's plans for the development of its facilities at New Orleans, has reached the point where President Stuyvesant Fish, of the Illinois Central Railroad, has written a personal letter to the levee commissioners, withdrawing all propositions made by the railroad in the matter. Mr. Fish called attention to the fact that the levee board had declined the propositions made by the railroad company, notwithstanding the very material concessions verbally made by him at the suggestion of the board, and that the company's attorneys had gone as far as they possibly could without sacrificing the interest of the railroad company in the very large investment of capital contemplated under the contract. Mr. Fish adds that while he did concede matters involving large additional expenditures of money, he could not yield in the questions involving either the permanency of the rights of the railroad company or the retention by it of the necessary control of the operation of the tracks to be built. The failure of the negotiations seems to be due to legal technicalities from the levee board's standpoint. It is unfortunate for New Orleans that the framers of laws affecting that city should have devised restrictions upon enterprises tending to the development of the city. This is not the first time that the Illinois Central Railroad has had to contend with such difficulties. The company has shown by its work its faith in the future of New Orleans and its determination to do its share toward the upbuilding of commerce there. Public and official sentiment in that city seems to favor the wishes of the railroad company, and it is hoped that out of the present confusion some plan may be devised for the benefit of both the railroad company and the community.

News comes from Montgomery that corporations of Alabama are preparing to contest a bill introduced in the legislature changing the method of taxation of corporations doing business

in the State. We have not seen the text of this proposed measure, but suggest that the legislature cannot move too cautiously in action affecting aggregations of capital, and that it should bear in mind that taxation is intended not as a weapon in the hands of politicians, but merely the means of providing support for the administration of the affairs of the State. Unwise legislation in this particular will do more than offset the benefits of exemptions of manufacturing plants from taxation for a term of years.

Geology of Georgia.

Contemplated action by the Georgia legislature indicates that the work of the geological survey of that State is likely to be crippled, if not seriously impaired, in the interests of economy. This is to be regretted. It is believed that the work now being done by State Geologist W. S. Yeates and his staff is distinctly practical and productive. The bulletins issued by the survey are calculated to attract developmental capital to the mineral resources of Georgia, and indeed have attracted it. All the resources in the world are valueless if they are untouched by the energies which make them available for consumption. The best way to bring the resources and the energy together is to let the world know what the resources are. This is being done by the geological survey, and in such a practical manner that every dollar spent in furthering the work of the survey may be regarded as a permanent investment for the profit of Georgia.

HOPEFUL FOR 1899.

Manufacturers of Many Kind Prepared to Extend Their Business.

With the closing of the year business men are prone to make a survey of their operations. During the past twelve months there have been many influences tending to hamper temporarily business operations, but in spite of these, 1898 is approached with cheerfulness and hopefulness by enterprising men of the country. The Manufacturers' Record during the past few days has received letters from manufacturers of various kinds in different parts of the country. Prospects are unvaryingly bright. Their trade is extending in this country and abroad; the forces of their employees are increasing, and additions are being made to old plants, and new ones are contemplated, as may be seen in the following letters:

Adding to Equipment.

Harold A. Richmond, president American Emery Wheel Works, Providence, R. I.: "The outlook in our line is very promising, especially for foreign trade. We are constantly obliged to add to our equipment to handle our increasing trade. We believe that the near future will be a period of general business activity."

Increasing Its Trade.

George J. Freedley, secretary and treasurer the Cardwell Machine Co., Richmond, Va.: "While this is usually an 'off season' with us, yet we are very busy. Prospects for increased trade are good, and we are looking forward to a good season. We have recently enlarged our plant, and expect to still further increase it the coming year."

Doubling Force of Men.

F. W. Pilsbry, manager the Fred W. Wolf Co., Chicago, Ill.: "The outlook in our line of business is very encouraging. Our business increased very rapidly during our last fiscal year, and so far during this fiscal year it is still increasing to a

very great extent. We have so much confidence in the future in our line of business that we are now building additions to our factory which will double our capacity. We are investing a large amount of money in new tools, electric cranes, etc., and are doubling our force of workmen."

Eloquent Deeds.

C. H. Dempwolf & Co., York Chemical Works, York, Pa.: "Our improvements now under way are several new buildings, including one large addition to our acid phosphate department, affording an increased capacity of 5000 tons per annum. The new addition will be equipped with the latest machinery for economically and rapidly manipulating acid phosphate, as well as complete fertilizers. With regard to our views as to the general business outlook for next year, the improvements which we are now making will speak more eloquently than any letter that we can dictate."

A Foothold Abroad.

C. W. Bender, secretary Wilson Laundry Machinery Co., Columbia, Pa.: "We find present business very satisfactory. Our business this year has so far exceeded the same period of last year about 12½ per cent., and future prospects are very bright. Our foreign business is increasing steadily, and we look for a very material increase in that department. Almost every mail brings us inquiries from new foreign points. American laundry machinery is fast gaining a foothold in all foreign countries, and as they do not have anything in this line to compete, they must come this way for their needs in this line. We are putting a few additional machines in our factory to enable us to fill orders more promptly and reduce cost of manufacture. We have just moved into our handsome new office building. This improvement was necessitated by our fast-increasing business, in order to better accommodate our clerical force."

Steady Future Increase.

Azro A. Coburn, treasurer the Coburn Trolley Track Manufacturing Co., Holyoke, Mass.: "The general business outlook from our standpoint is most encouraging. We have had a very good business this year, and believe that the prospect for the future is a steady increase. A growing demand for our overhead tramway system for cotton mills, foundries and machine shops has been felt by our receiving a good many contracts. We take it that the expense the mills go to to put in our carrying-track system indicates they must have business in sight in the future, or they would not put out the amount of money some of these contracts call for. These orders do not come from one particular part of the country, but from all directions. We have sold more parlor and barn-door hangers in 1898 than any previous year; also our store-ladder business has constant demand."

More Room Needed.

R. F. Blodgett, secretary the Pratt & Whitney Co., Hartford, Conn.: "We do not contemplate any enlargement of our buildings at present, though we think more room could be used to advantage during the coming five years. Our business has been about 25 per cent. larger in volume this year than last up to date. We anticipate a larger business soon."

On the Verge of a Boom.

The J. W. Ruger Manufacturing Co., Buffalo, N. Y.: "Our views in regard to the business outlook are that we are on the verge of a big boom as far as manufacturers are concerned. The outlook never was more promising as to our own plant than it is at present. We also hear good reports from many of our

friends. Our orders are coming in voluntarily faster than we can fill them, and enquiries for future wants indicate that our plant will soon be too small for our necessities. We are having some large orders for export as well as for domestic trade. The outlook is that gas engines are making their mark in the manufacturing industries of this country. Our electric-light gas and gasoline engine is a wonder, and a great seller. The only trouble we have is to make them fast enough."

Business Exceeds 1897's.

The Lunkenheimer Company, brass and iron steam specialties, Cincinnati, Ohio: "Our business for 1898 was very much in excess of that for 1897, and has exceeded all our expectations. We have been exceedingly busy in every department, and have increased our facilities fully 20 per cent., but even this has been insufficient to meet the growing demand for our specialties. Our export trade has also been entirely satisfactory, although the greatest increase has been with our home trade."

Doubled Its Capacity.

C. F. Quincy, president and treasurer the Q & C Company, railway specialties, Chicago, Ill.: "We have within the last sixty days more than doubled our capacity by an entirely new power and lighting plant and new buildings; this, in view of the fact that we have not been able to keep up with our orders and can readily see a demand for a considerable time that warrants the investment."

Everything Exceedingly Bright.

John Rahn, Jr., manager Rahn & Mayer, lathes, Cincinnati, O.: "As to the general business outlook in our line, etc., we beg to say that everything is looking exceedingly bright. Our business has been growing steadily for the past twelve months; in fact, so fast that we are unable to take care of it with our present capacity; hence are contemplating the enlargement of our works in the near future. Comparing our business with that of last year, we wish to say further that, whereas our home trade is increasing encouragingly, we still, however, are doing a much larger export business than a year ago."

Business to the Limit.

Wm. D. Tilden, president the Steel Ball Co., Chicago, Ill.: "We began business in May last, with a productive capacity of 300,000 balls a week. We have been steadily increasing our plant as rapidly as machines could be built, and by the first of the coming month shall be turning out 1,000,000 balls every ten hours. Since the middle of May there has never been a time when we have been able to accept all the business that has been offered us, and to catch up with our orders we shall have to run our plant day and night. In view of this state of facts you will readily understand that we are not yet in a position to look for more business. The manufacturers of bicycles have been far more prompt in grasping the advantage to be derived from the use of balls that are perfect spheres and are true to gauge, than we had any idea they would. We simply underestimated our market, and are obliged to hustle to put ourselves in position to meet the demands that are made upon us."

Will Enlarge Factory.

J. Edward Tuttle, president Pearson Jack Co., Boston, Mass.: "The ending of the year finds us with a most gratifying increasing business—the same has more than doubled during the past few months—while we are constantly adding new roads (both steam and electric) to our list. We have had the past sixty days large additional orders from roads which have given our jack a rigid test. We have today received the first instalment

of a large order from one of our most important railroad systems of New England, and this after having thoroughly tested our jacks the past season. We have also largely increased our export business, having filled orders the past thirty days for New Zealand, Australia, Germany, Russia, Japan and the South American republics; therefore, we are contemplating an enlargement of our factory, for we believe the unexceptionable condition of the United States must bring to those who are alive to the best advantages of trade and manufacture most satisfactory returns."

Running at Night.

Theo. Albert, secretary and treasurer the Wm. Powell Company, Cincinnati, Ohio: "Our business is booming, with a great big B. Are running the factory at night, and still are unable to please our customers in the way of shipments. Today's mail brings no less than a dozen complaints about our tardiness."

Export Orders Increasing.

Frederick C. Phillips, president and general manager the Elwell-Parker Electric Co. of America, Cleveland, O.: "As to the general business outlook, we consider this excellent. Not only is the demand for all manufactured products good in this country, but, as is now generally known by everyone, the demand for American manufactured products abroad is large and increasing. As regards the foreign demand for machinery of American design and manufacture, this is undoubtedly due to the fact that the Americans are far in advance in labor-saving methods and appliances, and it is now plain that our foreign friends are all making haste to get into line, so that they may be able to compete with one another and with this country in the markets of the world. In our own business we have to report a most gratifying increase of export orders for the machinery that we are building."

FAITH IN THE SOUTH.

Gen. Bradley T. Johnson's Study of a Typical Community.

I am convinced that the Southern States at this time offer greater inducements for energy and enterprise than any part of the world. Neither India, Africa, Australia or South America can compare with them in inducements or advantages offered to capital and industry.

The general obstacles which stand in the way of Northern immigration are rapidly being removed. The tendency of the State legislatures to interfere in the management of the investments of capital by means of commissions is gradually correcting itself, and will soon pass away. The exhibition of mob violence by lynch law has aroused a steady determination to break it up and to insist upon justice being administered swiftly, surely and honestly. The unwritten law of the South has always been that the man who wrongs a woman must die, and die by the hand of her nearest of kin. It is the survival of the Brehon laws of Ireland and the common law rights of appeal for murder by next of kin which is now represented in the judicial procedure of England and many American States by the remedies given to next of kin for death by violence by Lord Campbell's act. The evils of negro suffrage have produced and are producing many social evils, which are gradually being eliminated. As it gets understood by the North that negro rule in county or city will never be submitted to, and is utterly impracticable and wrong, that source of disturbance will be eliminated.

And the condition of the negro is steadily improving. If he was let alone by

the white adventurers who use his vote he would do much better. In this county, of which I know, and I suppose it is the same in all the counties of "the black belt," where the blacks greatly exceed the whites in population, the negro is steadily buying and paying for land and stock. I have a large number of tenants who work from thirty to 100 acres of land, paying rent of one-quarter of the crop. Every one of them has a small farm of his own, from ten to twenty-five acres, paid for, and some mules, plows, wagons and steers. They are doing well, and are a good, honest, hardworking peasantry. The material condition of a population tells the story of its industry, frugality and happiness.

The farmers are poor, very poor, but the county is dotted with saw mills, which cannot supply the demand for lumber to build new houses and barns all over the county. In the village of Amelia C. H. there is one small tobacco factory. The manufacturer doubled his small capital last year, and is now building a large factory of granite, with greatly-increased facilities. And in a short time the universal law of manufacturing will be seen in the manufacture of tobacco. Small factories will move to the tobacco fields, just as cotton factories have moved to the cotton fields and iron foundries to the mines. The raw material will not be carried to the factory, but the factory to the raw material. This means for the tobacco country of Virginia and North Carolina greatly-augmented profits, saving of freights to the planter and a home market, wages for work kept in the community and invested there.

Amelia county is thirty miles long and ten wide, contains 222,788 acres and has a total population of 9068. This makes about 300 square miles and thirty to the square mile. The soil is red clay and sandy loam. Forests of oak, walnut, poplar and hickory, a great deal of second-growth pine, also of original pine forests. The property is assessed as follows:

Real estate—White.....	\$835,831
Negro	93,087
Personal property—White.....	266,080
Negro	27,314
Total—White	1,101,911
Negro	120,401

The negroes, therefore, own more than one-ninth of the property of the county.

The ratio of assessment is the same for black and white, and is just. The assessment does not show the real value of property, for there is no market for real estate, and the assessment is arrived at by comparison. My observation leads me to the conclusion that the assessment is about one-fifth of the market value, that is, the value at which the property could be bought if a purchaser could be found. This is the result of thirty years' government of the freedman by his former master; for he has never had any appreciable weight in State or county government.

Mr. Coleman, the clerk of the court, has been clerk since 1857, and Ro. G. Southall the Commonwealth's attorney since carpet-bag times. Major C. R. Irvine has been commissioner of revenue for years. He was captain of the Amelia troops and major First Regular Cavalry. They all three are gentlemen, "blooded people," in the vernacular, and they are elected and re-elected every election by the negro vote, and will be as long as they want to be. This is a demonstration of the just dealings with the negro in Virginia. They are happy, prosperous and contented. This county is a type. The negroes have a large majority, and could easily elect blacks to be Commonwealth's attorney, county clerk and commissioner of the revenue. They do elect gentlemen, their former masters, with whom they have lived all their lives. Therefore the appre-

hension of race trouble is thoroughly eliminated.

There is a sparse immigration here of first-rate people from the Northwest, who are prosperous and satisfied. The climate is perfect, the water is lithia and abundant, and in no part of the world can a man with \$1000 and industry, sobriety and intelligence make a home as soon as he can here. Our politics are clean, our judiciary absolutely above suspicion, our people poor, but sober, hard-working and honorable, and they gladly welcome decent people. Others don't do so well. **BRADLEY T. JOHNSON.**

The Woodlands, Va.

MACHINERY FOR CUBA.

American Manufacturers Urged to Be on the Alert.

[Special Cor. Manufacturers' Record.]

Havana, Cuba, December 7.

During past few weeks the lumbermen of Cuba have been "stirring their stumps," and active preparations are now being made to cut cedar and mahogany for export. The shipping season opens in February and runs to August. The annual export to the United States before the war was about 6,000,000 feet, nearly 50 per cent. of which was consigned to Wm. Wicke & Co., of New York. The small sizes, measuring from nine to twelve inches, pay eight cents, and the larger sizes, from thirteen to twenty-two inches, bring ten to twelve cents. Men well posted in the business say that not near enough cedar wood can be shipped the coming year from the islands to supply all demands, for two reasons, viz., the scarcity of oxen for hauling, and an important arm of the industry, and the short time in which to make the necessary preparations.

It is said that the Cuban cedar is not adapted to the manufacture of lead pencils. As material for cigar boxes it is unexcelled. Cedar grows here on land that may be either good or bad for cultivation. A tree with 200 feet of wood costs \$1 standing, but the land transportation and ocean freight runs its value up to \$16 when laid down in New York. The usual figure for a good-sized tree is from \$2 to \$3.

It requires long experience to estimate the quantity of either cedar or mahogany that may be contained in a Cuban forest, as only about one in every ten trees will be the wood you are looking for, and unless the explorer is a good horseman and an expert judge of timber he can neither purchase nor rent woodland in this country to advantage. The virgin forests are so dense that a trocha is required to be cut from each tree that is felled to open land in order to load it on the ox carts. For thirty-five or forty years wood cutting has been going on in Cuba, and already the best timber along the rivers and seashore has been taken out. There is comparatively little available lumber except in the interior, and this has to be brought great distances by ox carts. Those forests which have been exploited by enthusiasts and promoters are at present more or less inaccessible because of their remoteness from shipping points and the physical features of the country. Accurate statistics cannot be arrived at until the topographical engineer has made his survey of these trackless wildernesses. That the island abounds in marvelous varieties of rare and beautiful woods has been demonstrated beyond a doubt in the furniture and interior finish of the homes and public buildings of Havana, and therefore offers a profitable field to those dealers who study the requirements of builders, furniture factories and transportation companies who are on the lookout for new styles along both serviceable and ornamental lines.

Some fifteen years ago an industrial fair was held at Matanzas, at which fifty varieties, chiefly hardwoods, were exhibited. The result was an export trade sprang up with the United States, Germany, Holland and Great Britain, which would have assumed vast proportions but for the revolution. The principal lumber markets of Cuba are Manzanillo, Santa Cruz del Sur and Nuevitas. Among the largest exporters of lumber is the firm of Frederico Bauricel & Co., who have a branch house at Havana.

It is difficult as yet to form an exact idea of the value of land in Cuba, or even an approximate one. Its price is governed both by its surroundings and the circumstances of the owner. Fairly good soil, capable of producing on an average 25,000 to 30,000 arrobas (twenty-five pounds) of cane, can be bought today for \$25 to \$50 per acre, according to location, proximity to railroad lines and sugar estates being the essentials. The colonia (cane plantation) having two or more sugar estates for a market is sure to bring the highest price for its cane, which is, of course, a factor in the valuation of land. The railroad companies, in order to encourage the planting of cane, charge a relatively low freight on the raw product, but reimburse themselves by fixing an exorbitant one on sugar, and thus help the colonia. Cane land of superior quality, such as may be found in the provinces of Matanzas and Santa Clara, with subsoils from twenty-five to thirty feet in depth, is held at prices ranging from \$80 to \$100 per acre. On such soil cane has been cut for fifteen and twenty crops without replanting. Its cultivation is not expensive, owing to the quick growth of the cane, which outgrows the grass, whereas on poor or middling soil the opposite conditions prevail, which, together with the shorter yield, tends to lower the price of such land. Irregular prices will rule for some time, and the probabilities are that each tract will sell according to the means of the proprietor and his plans for the future, until conditions generally become normal. The growing confidence in Cuba's possibilities has already had the effect of stiffening prices. In consequence of the war there will be a large number of holdings to which it will be impossible to get a perfect title, and therefore the number of available farms will not be as large as is generally supposed. This will apply more especially to the tobacco district of Vuelta Obajo, in the province of Pinar del Rio, which has been ravaged and depopulated by the war, due chiefly to the reconcentrado policy. Good tobacco lands cannot be appraised today at anything near their future value. They can be had now for 25 per cent. to 33 per cent. of their value two years hence.

Every product can be raised on a farm in Cuba at the same time—cane, coffee, cocoa, oranges, pineapples, potatoes, cucumbers, tomatoes, asparagus, etc.

Before the insurrection there were 360 central factories grinding sugar in Cuba, and statistics show that the output of the year before the war amounted to over 1,200,000 tons. It is estimated that 107 factories have been burnt, leaving 262 in good order, capable of turning out crops of about 2500 tons each. But those 107 factories given as burnt are not completely destroyed, and can be repaired at a cost to each for sums ranging from \$25,000 to \$75,000. The repairs necessary represent an outlay of about \$5,000,000. This opens a field for American iron works, contractors for machinery and construction engineers.

The houses of these factories were chiefly of timber, which will probably be replaced by steel and iron structures, which have to be so planned and placed

in position as not to disturb the heavy machinery existing and that has not been burnt. These repairs will consist principally of connection pipes and the light pieces of heavy plants.

The electric plant in these sugar-houses will also have to be rebuilt, for they have been destroyed, and all dynamos are out of service because of fire or exposure. Many of the sugar-houses which are in good condition will be enlarged with the revival of the agricultural and industrial interests, as it will probably be necessary to increase their capacity to meet the demand. A number of new plants are likely to start up in the provinces of Puerto Principe and Santiago, where there are first-class lands which have never been cultivated in cane.

If the manufacturers of the States aim to control these iron constructions they must depart from their old methods of doing business. They should establish offices or branch houses here, seek the acquaintance of planters and owners of burnt estates, and study their wants as they now exist, together with what will be necessary a year or two hence. The trouble in the past has been in the sale of machinery on commission. Irresponsible agents have imported inferior grades from the States at cheap rates and disposed of the same at high figures. In these transactions only the name of the American manufacturer appears, and their trade-marks today are seen in the fields on engines, pumps, etc., whose superficial mechanism and poor quality are monuments of reproach. When the planter who has been duped by the factor compares his purchase with those of his more discerning neighbors who have dealt with the representatives of English, German, French and Belgian firms, he naturally draws a comparison to the disadvantage of the American trade.

There will probably be a large influx of European capital, with the view of purchasing established factories and constructing new ones. The stronger current seems to be centralized in London, which it is to be supposed American enterprise and ingenuity will counteract.

The government has entered into a contract with the American-Indies Company for the construction of a pier 400 feet long and six miles of railroad track to connect the pier with the United Railroads of Havana a short distance above Camaguey, in the territory east of Guanabacoa. Native labor will be employed to the extent possible. Ricardo Narjanes is representing the construction company; address, Havana. The government has invited proposals for the construction of six large warehouses to be built at Tricornia, the place where the pier goes in.

Murray, Hernandez & Murray, of Philadelphia, have established a machinery-importing and general American hardware agency in Havana. They represent Thos. Devlin & Co. and John Watt's Sons, of Philadelphia; the Erie Manufacturing Co., of Erie, Pa.; the Crescent Belting & Packing Co., of Trenton, N. J., and the American Steam Gauge Co., of Boston. Their stock will embrace gas and steam engines, electric motors and dynamos, builders' hardware and machinists' tools and supplies; address corner of Teuiente-Rey and Cuba streets.

N. C. Royster, of Birmingham, Ala., a prominent member of the American colony in Havana, has been made president of the new American Board of Trade. Mr. Royster is engaged in the importation of both light and heavy machinery on a large scale.

Benjamin Perlman, importer and packer of leaf tobacco, of Baltimore, is in Havana, and will spend some weeks in the island studying the market.

RAPHAEL S. PAYNE.

TRADE FOLLOWING PIG IRON.

American Commerce Viewed from the German Standpoint.

[Special Cor. Manufacturers' Record.]
Berlin, December 1.

The specter of American competition does not leave the German iron manufacturers and the German stock exchanges long at rest. Some six weeks ago I informed the Manufacturers' Record of the effect produced here by the announcement that American piping had been offered in the Rhine-Westphalian iron district at prices that the German producers could not meet. Now a similar story can be told in regard to American bar iron. The Frankfurter Zeitung in its latest stock-market report says, in recounting the bearish factors affecting the market:

"There was also talk to the effect that offers of American bar iron had been made in Germany underbidding German prices. Thus the attention of the bourse was again called to the danger of American competition for our iron industry. We shall have to reckon with the fact that American iron, after having already found an entrance into England and Holland, will also push its way into Germany, despite the barrier of a high duty, especially as the American iron industry is on a great boom since the war, and the iron works there are being greatly enlarged. As German producers are holding their prices considerably above the world market prices, there is a danger in the threatening American competition which cannot be overestimated. Our iron works should adopt measures of defence against it in good time."

Other papers refer to the same incident in a similar tone. The National Zeitung says in its stock-market report for last week: "An effort was then made to start a bear movement in prices, and hence arose rumors that intensified the apprehensions as to American competition, since it was not possible to mention any other unfavorable factors in connection with the present development of the industrial life of the empire. We have already shown that it would be prudent to take account of such competition, even if the threat of it should have no further effect than to bring about a lowering of prices in order to drive this enemy from the field."

Notwithstanding the tone of apprehension thus seen to be pervading the financial press on the subject of American competition, it cannot be said that the Germans have yet realized how intense that competition can be made within a short time. Our productive capacity, as shown by Mr. Swank's last yearly report, is only about two-thirds utilized, and new and modernized furnaces will increase that capacity indefinitely. Moreover, the scarcity of ocean freight room that has obstructed exports from Alabama for some months cannot last long, for trade will follow pig iron, whatever it may do in regard to the flag. Ocean freight prices, too, are bound to go lower; the great activity in all shipbuilding yards of the world just now will necessarily have that effect. Furthermore, iron prices are still rising here and in England, whereas they are shading off with us, and beyond all this again the supplies of the Old World are becoming exhausted in places, notably so in Spain, the source of the cheapest and best ores in Europe. So all things considered, whether we look to the immediate future or to times more remote, the prospects for American iron and steel products on the European market are all that can be desired. In international trade the cheapest producer takes the cake, in the long run, and from that standpoint Uncle Sam will not go hungry.

The German iron and steel industries have been enjoying such unexampled prosperity for several years that the fear not unnaturally arises at times lest the culmination point of this great movement should soon be passed. Particularly at the present moment such fears are entertained by some observers, in view of the situation of the money market here. German industries, trade and banking have been absorbing capital at so rapid a rate during the past few years, and the demands of business of all kinds for ready money are at this moment so great that the money market is experiencing an extraordinary stringency, and the discount rates at the Imperial Bank, after having been advanced three times in six weeks, are now higher than at any time since 1882. In that year there was a 6 per cent. rate for eighteen days in January, due to a panic in France, but this year the same rate prevails, is sure to have a run of not less than two months, and the significant fact is that the high rate at this time is due entirely to boom conditions in the empire, and is not even intended as a measure to prevent gold exports. Under these circumstances we are witnessing the unparalleled spectacle of German paper being offered for discount in New York and being taken up there through drafts on the big American credits in London. Thus Uncle Sam is gradually becoming the banker of the world. He will become so fully when he once sets his heavy foot on the populist neck and establishes a scientific and elastic banking and currency system.

But returning to the German iron and steel industries and the effects of dear money upon them, a correspondent of the Frankfurter Zeitung has recently interviewed a number of the large producers of the Rhine-Westphalian district to learn their views as to the continuance of the boom under existing money market conditions. The result of his investigations was that not a single break in the bow of promise could be discovered. The producers unanimously agreed that a boom of so long life as the present one is entirely unique, and from this standpoint one would naturally expect the crest of the wave to be turned at an early day, but the activity of the works and the large supply of orders on hand left absolutely no grounds for fear that less favorable times are near at hand. Thus the pig-iron syndicate had on hand May 1 orders amounting to 368,000 tons, on August 1 to 525,000 tons, and its orders now reach 1,100,000 tons, the syndicate's yearly output being only 1,200,000 to 1,300,000 tons. Many independent works have orders reaching into the second half of 1899. As for the effect of the high discount and interest rates upon the iron industry, it was thought no serious trouble would result from this direction. Most of the works have ample working capital; others that wished to undertake the construction of new furnaces or additions to their mills will doubtless have to wait till the money market resumes its normal status.

A difficulty of another kind is interfering with the development of pig-iron production—the lack of freight cars to transport coal and coke. There are new furnaces waiting to be blown in, but they can get no coke, and are waiting for the distant day when the State railways put on enough cars to handle the traffic offered. A State railway may be a very good thing in theory, but German business men are sighing for one day of American enterprise in railway management. Coal mines are now dumping their coal because cars are not delivered in time, and some iron mills have had to curtail production for lack of coal.

The Germans are continually introduc-

ing improvements in their methods and appliances in the iron and steel industries. The Hoerder Mining & Smelting Co., operating in the vicinity of Dortmund, has just introduced a plant which is said to be unique in the world. The company has hitherto been collecting the gases from its blast furnaces and burning them under its steam boilers, but now it has taken a long step forward by introducing a patented system for purifying the gases and then burning them in gas machines which drive dynamos. Thus it will produce at small cost powerful electric currents, which will be conducted over the hills to its iron and steel mills, where all the rollers, in fact all the machinery, will be driven by electricity. The technical side of the question offered very great difficulties, and the experts doubted long whether the plan was possible at all, but it has now been put into operation in part, and is said to work like a charm. The significant fact about this plant is that the cost of production will here be reduced so greatly that the company expects to be able to meet any competition from any source whatever. American experts would do well to turn their searchlights upon the Hoerder plant.

The production of pig iron in Germany is still on the increase. The output in October was 651,122 tons, against 614,497 in September. In October, 1897, the output was 611,779. For the ten months, January to October, the production this year was 6,101,717 tons, against 5,674,487 tons last year.

The high prices of all kinds of meat in Germany just now have led to the organization of a company at Hamburg for the purpose of importing American fresh meats into Germany. There ought to be an immense future for such a company, provided the government throws no obstacles in its way. Under the existing high prices imports of American bacon and hams have this year been doubled.

WM. C. DREHER.

ADVANCE IN IRON.

Marked Improvement Continues in the Birmingham Market.

[Special Cor. Manufacturers' Record.]
Birmingham, Ala., December 13.

In every respect the condition of the iron market has greatly improved. Occurring, as it does, at that period of the year when the demand is usually very limited, its significance is very plain. It means fear of a further advance. And this fear is predicated on solid facts. The demand the past week was large for the season, and the assertion made in these letters that any activity in demand would advance prices has been verified. Last Tuesday the Tennessee Coal, Iron & Railroad Co. advanced price on all grades of iron twenty-five cents per ton. This made the market \$7 for gray forge, \$7.50 for No. 3 foundry, \$8 for No. 2 foundry and \$8.25 for No. 1 foundry. The soft grades are, No. 1, \$8.25; No. 2, \$8. These prices had prevailed to a limited extent with some for awhile back, but were not the general market. They are not strictly adhered to now, in every case, but, as a rule, they cannot be shaded. The leading interest registered sales of 30,000 tons during the week and declined sales of an equal amount. Other interests were also favored with good business, and while they decline to name tonnage sold, assert that they placed all the iron they cared to sell and could with ease have increased their sales. The most of the week's business was for domestic account. As to territory, it was fairly distributed. There was some export demand, and those who could supply the grades required filled, in part, the demand. For the current year

ending with this month the export sales as compared with those of last year will show an appreciable increase, the total approximating 250,000 tons. The growth of this trade has increased with the increased facilities offered, and will be further enlarged if ship-owners will supply ocean room. The railroads are doing their full share in fostering this trade by liberal freight rates to ocean ports. In warrants there are very few, if any, transactions. None are reported, but the yards are being drawn upon yet by iron-shippers. There has been some ease-up in the scarcity of cars that will add to the volume of shipments from now on. Stocks are still being depleted in proportion to the cars obtainable for shipment.

In coal the situation is acute. Many of our dealers trusted to luck, with the usual result. The consequence is their bins are empty, their customers are disgusted and their competitors are reaping a profit (extra) of from fifty cents to one dollar per ton. Coal operators say that they are mining all that their facilities permit, and can supply scarcely half the demand. In some cases the railroads, by virtue of necessity, are borrowing for their own use coal billed out to other buyers. Some tracers sent out for coal will never find how or where it got lost.

The Birmingham Foundry & Machine Co. has contracted with the Southern Bridge Co. to erect an addition to its shops, to be in dimensions 100x200 feet. It will be equipped with up-to-date requirements of the modern foundry, including electric cranes. This addition was rendered imperative by the increased business it has secured. Its specialty has been Corliss engines, and every one it has built has served as an advertisement for it and brought further orders to it. The meeting of the stockholders of the rolling mill at Louisville last week was informal and unofficial. A full statement of actual condition was submitted, and a desire was manifested to put the mill on a first-class footing. A committee, consisting of M. H. Smith, president Louisville & Nashville Railroad; G. W. Norton, of Louisville, and J. A. Vanhose, of this city, was appointed to formulate a plan for putting affairs on a sound business basis. This plan, when matured, will be submitted to a called meeting of stockholders. In the meantime the mills are running on and will continue to run. Now that the affairs of the mills have been subjected to inspection, the wonder is that the parties who forced the assignment should have been so precipitate, injuring not only their own holdings, but also those of others who were interested.

J. M. K.

Eastern Iron Markets.

[Special Cor. Manufacturers' Record.]
Philadelphia, Pa., December 14.

The approach of the holiday season is not marked with the usual quietness. A good deal of crude iron has been sold, but the purchasers were among the large consumers. Bessemer iron has been quite active, and advices indicate an advance. Southern iron has been advanced twenty-five cents per ton, nominally, at least. Foundry men are cautiously increasing purchases of favorite brands. Mill men have made purchases during the week to strengthen themselves. Large carbuilding orders are making business good at the bar mills. The signs this week point to big transactions in billets. The plate mills have already secured a 35,000-ton Australian order, and will have to manage an order for 50,000 tons more. This means higher-priced tank, flange and boiler plate before long. The structural mills are busy, but the same pressure is not felt. The pipemakers will catch up to orders by February, but by that time

spring work will probably be urgent. Tube work is crowding in and prices are firm. Merchant-steel makers speak of a lull during the past few days, but there are no visible signs at mills. New England industries are shaping themselves to a greater volume of business, but only a few of their managers have been in the market for raw material. Steel-rail makers are quietly securing large orders, and the requirements are certainly showing up well. The best posted say everything is pointing to a surprising demand for rails, plates, bars, pipe, etc.

The producing interests are not inclined to welcome distant deliveries except in steel rails, and in this department the way is opened to any and all who desire to place orders as far ahead as they please. Cost is being fractionally depressed, and the railmakers possess within themselves—or most of them—the sources of supply to protect them against fluctuations in cost. The outlook is stimulating and the coming year will be exceptionally prosperous.

American Coal in France.

Writing from Marseilles, France, Consul Skinner says that the steam-coal supply of Marseilles has been quite unsatisfactory of late, owing largely to a shortage in the British output, and he has been asked by one large house about the prospect of securing coal from the United States. The specifications submitted to him are as follows: A coal resembling best Welsh is wanted, that is to say, not giving more than 1 to 7 per cent. of ashes, developing 8000 to 8500 calorific power, containing the least volatile matter.

If the American coal companies can supply the coal desired at the right price, the opportunity for entering a new and important market awaits them. While several of the local houses represent British companies in such manner as to operate against their wishing to introduce a new coal, there are others independently situated and prepared to engage in any business enterprise offering good results.

Investments in Haiti.

American capital is about to seek an entrance into Haiti to develop its resources. A company is being formed, under a charter of the State of New Jersey, to construct artesian wells and supply water in various localities. Another company proposes to utilize the native cabinet woods, which are susceptible of very high polish, in exportation to the United States and in the manufacture of furniture. It will operate under a charter granted by the State of New York. Another syndicate is being organized to build a railroad to open up the northern part of the republic. The government is aiding these enterprises with the means it has in its power.

The National Conservatory of Music, founded by Mrs. Jeanette M. Thurber, of New York, is giving this winter a series of orchestral concerts in the Concert Hall of the Madison Square Garden, the proceeds of which are to be devoted to defraying the expenses of the educational work and to the purchase of orchestral instruments for the conservatory, which has long contemplated establishing an orchestral school. The semi-annual entry examinations of the conservatory will be held on January 3, 4, 5 and 7.

About thirteen of the stove-manufacturing companies of the South are now members of the Southern Stove Manufacturers' Association. The officers are: President, H. G. Saunders, Birmingham; vice-president, H. W. Buttorff, Nashville; secretary and treasurer, Henry W. Hedden, of Chattanooga.

WEST VIRGINIA'S STRENGTH.

The Embarrassment of Western Coal Operators.

Mr. E. H. Coox, in the Engineering and Mining Journal, has an article in which he explains why West Virginia is a thorn in the side of coal operators in Ohio and Western Pennsylvania, and why the thorn has been growing sharper from year to year, until Ohio operators are seeking a foothold in West Virginia. In the first place, he shows that the Ohio operator is tied hand and foot by the Miners' Union; that some of the large railroads, notably the Chesapeake & Ohio and Norfolk & Western, which do not pass through the Ohio coal fields, haul the West Virginia coal into the Ohio markets for a freight rate not much in excess of the rate charged by the Ohio roads for hauling the Ohio coal. This is so marked that in Chicago and in almost any Ohio town outside of the coal regions or any of the cities of the Northwest, West Virginia coal can be bought from twenty-five to fifty cents a ton cheaper than Ohio coal. In addition he says:

"In most localities in Ohio there is in the seam from one foot to two feet of refuse, including bone coal and slate, which must be handled, while in the West Virginia coal this does not occur, though there is from one inch to three inches of slate in some cases. While the West Virginia seams are thinner in some places, still there is not this dirt to handle, and what they have is coal, not refuse. In Ohio there occurs only one workable seam in each locality, except in rare instances, while in most localities in West Virginia there occurs from one to four workable seams, separated vertically by seventy-five feet to 300 feet. In many cases three or four seams are worked at one time with one tippie.

"Most of the West Virginia coal worked at the present time is well up in the hills, while a considerable part of the Ohio coal is level with or below the valleys, making it necessary to work it by slope or shaft, while the West Virginia coal is worked by incline, the weight of the coal furnishing the power which brings it down the hill and takes the empty cars back up. Another important factor which we cannot deny is the superior quality of the West Virginia coal for most purposes, and if the buyer can get a superior coal for less money than the inferior coal, of course he is going to take it.

"Very little of the Ohio coal will coke, and there is very little market for the slack, except what is shipped in run-of-mine coal, which fact is attested by the enormous slack piles at most of the Ohio mines. This slack must in some way be conveyed from the screen to the slack pile, which, of course, takes labor or expensive machinery. In West Virginia the slack makes in most cases an excellent quality of coke, and besides it has a ready market at a good price, as it is an excellent fuel for many purposes.

"This West Virginia coal, being softer than the Ohio coal, could, with the same labor, be mined more easily and cheaply. Being higher in the hills, the mines are more easily and cheaply drained and ventilated. West Virginia mining laws, being less stringent than Ohio laws, much less attention and expense are spent in the way of ventilation, and much narrow work in the way of break-throughs is saved.

"Every strike in Ohio—and they have had about one a year for the last six or eight years—has resulted in a harvest for the West Virginia operator and miner, and the transfer of a large amount of business from the former State to the latter, much of which is never recovered. When one of these strikes occurs and an

attempt is made to organize the West Virginia miners, the operators raise the price of coal (which they can easily do at such a time) and the pay of labor to keep them at work. And while some of the miners have been organized for short spaces of time, the United Mine Workers of America have never succeeded in getting any kind of a foothold in that State.

"There seem to be very few ways to equalize matters. As I have said, the union has not succeeded in getting the West Virginia miners into its fold. One reason for this is that, instead of getting them thoroughly organized before calling a strike, they call the strike first, and then, when the West Virginia miners are profiting thereby, try to get them out too. The other alternative is for the Ohio miners to come down to such a price for mining as will enable the Ohio coal to compete with that from West Virginia. If they do this and recover some of their lost business they might, in the course of a few years, when the miner from the Mountain State sees that he is no better off than his organized Buckeye brother, induce him to go into the union. But when the non-union men are working steadily, while the union men are hardly working at all, it is naturally hard to convince him that the union would benefit him. There being an overproduction of coal in this country at the present time, it is hard to see, under existing circumstances, how the coal business of Ohio is to improve as long as the United Mine Workers fight for a high wage scale and the cheap West Virginia output is steadily increasing. Notwithstanding the fact that at the present time many Ohio mines are working on an average of not more than one and a-half or two days a week, and some not at all, the union miner will not be convinced that half a loaf five or six times a week is better than a whole loaf once or twice."

The Christmas number of the new 10-cent Frank Leslie's Popular Monthly has success written all over it. The picture cover, by W. Granville Smith, is one of the most brilliant productions of that artist, who has made a special reputation in this line of work. The literary feature is W. D. Howells' farce, "The Smoking-Car," illustrated by Grunwald. These farces are perhaps the most distinctively popular things that Mr. Howells writes. "The Romance and Tragedy of Schonbrunn," the historic home of the late Empress Elizabeth of Austria, are recounted by John Paul Beacock, with the accompaniment of some portraits and interior views never before published. Mrs. Frank Leslie gives in "Cuban Bygones" some delightful reminiscences of life in Cuba under the old Spanish regime. Cynthia Westover Alden, of the New York Tribune, writes helpfully about "Women in Journalism."

Julian Ralph, who has been for some years in England, writes for the December Cosmopolitan a very clever analysis of what seems to him the English ideas of a gentleman, and Mr. John Brisben Walker attempts to consider the American ideals. We are in the formative stage of American manners, and too much stress can scarcely be given to the dangers of introducing those ideas which are least admirable in the character of our English cousins.

Robert Grant returns to the vein of delightful social satire which characterized his "Reflections of a Married Man" in the new articles beginning in the January Scribner's, entitled "Searchlight Letters." The old favorites Fred and Josephine will reappear in these letters, which are not stories, though they have the charm of fiction.

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

BUYING STREET RAILWAYS.

Widener-Elkins Syndicate in Baltimore, St. Louis and Pittsburg—Millions Invested.

A syndicate which includes large stockholders in the Baltimore & Northern Railroad Co. has secured control of the City Passenger Railway system of Baltimore. The syndicate includes Alexander Brown & Co., bankers, and Henry A. Parr, president of the Baltimore & Northern, and Philadelphia parties. It is supposed that the sale will have the effect of consolidating the City Passenger and Baltimore & Northern lines. The system will then represent 146 miles, of which ninety-three comprise the original City Passenger system, fifteen miles the Baltimore & Middle River electric line and thirty-eight and one-half miles the Baltimore & Northern. The securities of the company, it is understood, will comprise the following: Middle River road—stock, \$400,000; bonds, \$300,000. Central Railway—stock, \$600,000; bonds, \$1,100,000. Baltimore & Northern—stock, \$1,000,000; bonds, \$1,100,000. City Passenger Railway Co.—stock, \$12,600,000; bonds, \$2,000,000. Certificates of indebtedness, \$500,000. Total, \$19,600,000. The stock issue of the Central Railway Co. is \$300,000. The City Passenger Company bought the stock about a year ago for \$600,000. Much of the bonded indebtedness of the Central Company has been cancelled. The City Passenger Company owns the bonds of the Middle River & Sparrow's Point road, amounting to \$300,000.

The price paid by the syndicate for the City Passenger stock was \$12,600,000. The par value of this stock is \$25 a share, but the selling price was \$90, or over three times the par value.

The sale of the Baltimore City Passenger Railway, it is believed, is only one part of a plan to place many of the most prominent street railways in the country practically under the control of one syndicate. Messrs. Alexander Brown & Sons, who were instrumental in negotiating the purchase, took a prominent part in the purchase of the lines of the Pittsburg Traction Co., of Pittsburg, Pa. The sale was noted at the time in the Manufacturers' Record, also the fact that Baltimore investors purchased a large number of the bonds when they were placed on the local market. In connection with Messrs. Brown & Sons were Brown Bros. Co., their New York correspondents. It is well known that Philadelphia parties have advanced a large proportion of the funds to purchase the Baltimore City Passenger Railway. There is good reason to believe that they include Messrs. William L. Elkins and P. A. B. Widener, who are also interested in the Pittsburg system.

Just prior to the Baltimore sale a Philadelphia syndicate, which included Messrs. Elkins and Widener, also Brown Bros. & Co., of New York, purchased a controlling interest in the stock of the Lindell and Missouri street railway companies of St. Louis. This sale was briefly referred to in the last issue of the Manufacturers' Record. By it Philadelphia and New York parties obtained control of the principal railway lines of that city. In order to give an idea of the magnitude of their transactions it may be stated that within two years the syndicate has acquired the following properties: City Passenger and Baltimore & Northern roads, of Baltimore, 146 miles; Pittsburg

Traction, 127 miles; Lindell and Missouri railways, St. Louis, eighty-six miles; total, 359 miles.

It is understood that they are negotiating for the Consolidated of Baltimore, in addition to those already acquired in several large Western cities.

The "Black Diamond" Route.

In a recent issue of the Manufacturers' Record the statement was made that a report from England was to the effect that a foreign syndicate had become interested in the proposed railroad from the Ohio river to Port Royal, S. C., the route of which was recently examined by English engineers. According to Mr. Albert E. Boone, the principal promoter of the enterprise, the route has been considerably elaborated and changed from the original plan. In a letter to the Manufacturers' Record Mr. Boone writes: "The main line of the Black Diamond will be from Columbus, Ohio, to Port Royal, S. C., via Cynthiana, Ky., Knoxville, Tenn., and Anderson, S. C., bridging the Ohio river at Dover, Ky. Length of main line 848 miles, divided as follows: Ohio, 119 miles; Kentucky, 218 miles; Tennessee, 130 miles; North Carolina, 77 miles; Georgia, 20 miles; South Carolina, 284 miles. Each State has a separate corporation, with its own officials. After construction all these lines will be leased to a corporation that will be chartered and known as the Black Diamond Railway Co. The Indiana extension leaves main line at Cynthiana, Ky., via Ghent, Ky., Vevay, Ind., Versailles and Greenfield, a distance of 164 miles. The coal division, through the coal basin of Southwestern Indiana, leaves main line at Moorfield, Ind., via Madison, Scottsburg, Frederick, Vevay, Paoli, Jasper, Petersburg, 175 miles. All is surveyed and will be ready for construction north of Anderson, S. C., by May 1, 1899."

Tennessee Central Contract Let.

Further details of the construction of the Tennessee Central Railroad are to the effect that the Cumberland Construction Co., of St. Louis, organized to promote the project, has let the general contract to Messrs. Nagle, Holcomb & Co., of Chicago. As already stated in the Manufacturers' Record, the project involves the construction of 220 miles of road, of which about sixty are graded. The contractors, it is announced, will sublet the work immediately.

The line will be most important in the development of Tennessee. It will establish a link which will connect railroads ending at Knoxville with systems terminating at Nashville. Among these are the Louisville & Nashville, the Southern, the Illinois Central, and, it is understood, the Norfolk & Western will soon enter the former city. A number of very important towns are along the road, including Clarksville, Crossville, Rockwood and Monterey. It traverses extensive iron and coal deposits, also one of the most productive tobacco sections of the South. Jere Baxter, president of the Tennessee Central Company, has been working on the project for several years, and it is largely due to his efforts that capital has been enlisted in its aid.

Better Than for Years.

The Southern Contracting Co., of Louisville, Ky., in a letter to the Manufacturers' Record states that its contracts include the reduction of grades on the Louisville & Nashville, grading on the Cleveland, Cincinnati, Chicago & St. Louis, while it is negotiating for additional work in Missouri, Mississippi, Alabama and Ohio. The company writes that the indications point to a better sea-

son for work on railways in the South than it has had for many years.

Georgia & Alabama Meeting.

At the annual meeting of the Georgia & Alabama Railroad Co., held at Savannah, the present board of directors was re-elected, with the exception of Mr. J. Willcox Brown, of Baltimore, who has resigned and has been succeeded by Frederick D. Fisk, of Montgomery, Ala. The present officers re-elected are as follows: President, John Skelton Williams; vice-presidents, Cecil Gabbett and J. W. Midendorf; secretary, W. W. Mackall; treasurer, Bernard R. Guest.

The report of the president showed the Georgia & Alabama to be in excellent condition. It has steadily progressed, and is now one of the best-paying lines of the South. The report dealt with the recent undertaking of the company with regard to the establishment of terminals on Hutchinson's Island. The directors were greatly interested in the plans as set forth in the report, and in the president's discussion of the advantages that will accrue to the company from the large investments that have been made and are yet to follow.

Rolling Stock for B. & O.

The receivers of the Baltimore & Ohio Railroad Co. have been authorized by the court to lease additional rolling stock, which will greatly increase the facilities of the company. They will acquire through the Mercantile Trust Co., of New York, 3000 box cars and thirty locomotives; through the Maryland Trust Co. fifty locomotives and 3000 box cars and 2000 coal cars, and through either the Mercantile Trust Co. or the Maryland Trust Co. 500 gondola cars.

New Route to Texas.

The Illinois Central and St. Louis Southwestern railroad companies have made an arrangement by which a new route will be formed between Chicago and Texas. The Mississippi river will be crossed near Gray's Point, Mo., the terminus of the St. Louis Southwestern. It is understood that by the new route considerable mileage will be saved between Chicago and the principal Texas cities.

Railroad Notes.

The Street Railway & Electric Association of Virginia has been organized at Richmond, Va., with R. D. Apperson as president; E. R. Williams, vice-president, and H. P. Woodson, secretary and treasurer. The association represents the principal street-railway companies of the State.

A dispatch from Memphis, Tenn., is to the effect that the railroad companies entering that State are considering the idea of building a new station. It is stated that the Illinois Central has taken an active interest and has requested the city authorities to appraise property which it owns for a site for the depot.

The special committee appointed to make an investigation of the affairs of the Seaboard & Roanoke Railroad has engaged two expert accountants to examine the books and papers of the company. They are John A. Tompkins, of Baltimore, and Hamilton Corwin, of New York. The experts will make the examination and report to the committee, which consists of C. H. Krumbhaar, of Philadelphia; Lloyd J. Jackson and De Courcy W. Thomas, of Baltimore.

The Anniston Commercial Club, of Anniston, Ala., has been reorganized by the election of H. W. Sexton as president and L. B. Welborn as vice-president.

COMMERCE.

This department is devoted to a record of the rapidly developing commerce of Southern ports.

Lumber and Cotton at Sabine Pass.

The deep water at Sabine Pass will probably give the lumbermen in the vicinity of this port an opportunity to secure some of the large contracts for timber for the West Indies. One contract was recently awarded which comprises 18,000,000 feet of lumber. It is understood that much of it will be secured from Southeast Texas, and that vessels are about to clear from Sabine Pass loaded with it in the near future. This is only one of the enterprises which will play an important part in making Sabine Pass one of the principal export points in the United States. According to calculations, fully 40,000 bales of cotton will be sent to these docks for shipment during the next season. As already stated in the Manufacturers' Record, the cotton raised in the Southwest is of an excellent quality, and finds a ready market abroad. The fact that ocean steamships of deep draught can enter Sabine Pass will allow the cotton to be loaded and shipped abroad at an extremely small cost.

Headquarters at Galveston.

The Eureka Banana Co. has finally determined to locate its headquarters at Galveston, Texas. As recently stated in the Manufacturers' Record, the company intends operating a line of steamships between this port and Central America, where it owns plantations having an output of 300,000 bunches of bananas yearly. Three steamships will comprise its fleet.

Jottings at the Ports.

The ship channel from Hampton Roads to the Norfolk navy-yard has been completed. It is twenty-eight feet deep at low tide and 450 feet wide. The improvement allows large-size steamships to enter the harbor with less danger of grounding than heretofore.

The Charleston Fruit Steamship Line has been formed at Charleston, S. C. It will operate vessels between Charleston and the West Indies, and while making a specialty of importing fruit, will carry miscellaneous freight out of Charleston. The steamers will also have accommodations for passengers.

The Toms Creek Coal & Coke Co., of Virginia, is the lowest bidder for the order of 120,000 tons of coal desired by the Brazilian government for railway purposes. This bid was \$6.56 per ton delivered. Among the bidders were representatives of the Cardiff and other English mines, as well as a number of American companies.

A dispatch from Beaumont, Texas, is to the effect that the agitation in favor of a ship channel through Sabine lake to the mouths of the Sabine and Neches rivers has been revived. It is proposed to obtain government aid for the channel, which will be at least twelve feet in depth and will enable vessels to pass from the Gulf of Mexico directly to the rivers mentioned. Engineers have made a report in favor of at least this depth of water.

According to the statement of Vice-President L. S. Thorne, of the Texas & Pacific Railroad Co., this corporation has added 1000 freight cars and twelve locomotives to its equipment during the past year, largely for the purpose of carrying its export traffic to New Orleans. It has nearly completed its wharves and other terminal facilities at Westwego, opposite New Orleans.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

MOVING TO CHARLOTTE.

Branch of a Worcester, Mass., Supply Company Established There.

[Special Cor. Manufacturers' Record.]

Charlotte, N. C., December 13.

Another new and important manufacturing plant is to be added to Charlotte's list. Mr. Chas. A. Denny, vice-president and general manager of the American Card Clothing Co., of Worcester, Mass., and Mr. James Booth, of the Philadelphia branch, arrived here today, and within one hour after their arrival they had rented a storeroom in the Durham block for the business of the American Card Clothing Co. Mr. Booth will remain here in charge of the business. Mr. Denny says: "We have a stock of card clothing now on the way here, consisting of every kind used in the cotton and woolen mills of the South. This company has for many years supplied nearly all the card clothing used in the South, and is perfectly familiar with the wants of manufacturers. We shall keep a large stock in Charlotte at all times ready for immediate delivery and shipment from this city to the mills, thus saving much time and expense of freight from the North. We have also in transit all the machinery, tools and appliances necessary to recover tops, put on the clothing on cylinders and do everything necessary for the equipment of a card in our line. We will also have men here to do the work of covering tops, drawing on clothing, grinding and otherwise putting a card in order. We will have a complete equipment of grinding machinery for use on all kinds of cards.

"At some later day," said Mr. Denny, "we expect to make clothing here in Charlotte, but for the present we will ship out what we need for this branch from one of our other shops in New England in a manner similar to the plan adopted by the New England cotton-machine builders. Our equipment in the way of stock, of machinery and tools for doing all repairs and in the way of skilled men will be very thorough. We will be in position to furnish from here any quantity of clothing and have it put on at any point in the South in the shortest possible time and in the best possible manner."

This is unquestionably the most important movement of the year in textile circles for Charlotte. The American Card Clothing Co. is a large institution, and this move of opening a branch establishment in Charlotte is significant of this city's growing importance as the cotton-milling center of the South. The establishment of its Southern branch here must of necessity be of advantage to the city and to the mills of the Piedmont region and of the entire South.

A very clever exhibit of what the railroads are doing in the way of building new depots in the South was given in the Manufacturers' Record last week, but the railroads are looking after the smaller towns as well as the chief cities. Data for the architects has been given out by the Southern Railway for new depots at Danville, Durham, Spartanburg and Greenville. The Danville depot will be a very handsome building.

The Cotton Movement.

During one hundred days of the present season, according to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, the amount of cotton brought into sight was 6,248,985 bales, an increase of 351,163 over the same period last year. The exports were 3,260,654 bales, and increase of 306,219; takings by Northern mills 797,054 bales, a decrease of 166,919; by Southern mills 410,216 bales, an increase of 5716. These figures indicate that the Northern mills have begun to buy more freely than at any other time since the beginning of the season.

A Fine Yarn Mill Proposed.

A company is now under formation at Gastonia, N. C., which will build a factory for the production of fine yarns. The capital stock has been placed at \$80,000, and probably either 3000 or 5000 spindles will be installed at the start. Mr. George A. Gray is to be president of the enterprise, and Mr. R. P. Rankin, of Lowell, N. C., will be elected secretary-treasurer.

Wanted—Woolen Mill Location.

Mr. T. C. Newby, of Dresden, Ohio, writes the Manufacturers' Record that he has a complete woolen mill which he wants to remove South. A location for the plant is wanted.

Textile Notes.

A twine factory is projected for Cedar-town, Ga.

The new machinery and improvements for the Abbeville (S. C.) Cotton Mills, reported last week, will cost about \$100,000.

Mr. L. M. Hull, of Washington, Ga., contemplates establishing a knitting mill, and is now investigating the industry. The addresses of manufacturers of knitting machinery is solicited by Mr. Hull.

Messrs. J. M. Moyers and H. B. Warren have bought a sixth interest in the Warren Manufacturing Co., of Oregon, Tenn., manufacturer of cotton yarns. The business will be continued as heretofore.

The Avondale Mills Co., of Birmingham, Ala., is now operating its mill on full time, running 24,000 spindles and 900 looms. The company's president states that it is expected by January first 11,000 spindles and 100 looms will be added, thus giving the plant its full equipment as first decided upon, that is, 35,000 spindles and 1000 looms.

Under the principalship of Wm. W. Crosby, all the departments of the Lowell Textile School are running very successfully. There are seven candidates this year for the full diploma of the school, representing the cotton, design and woolen and worsted courses. As the course in chemistry is in its second year only, there are no candidates for the diploma in this course. More than ever before a satisfactory demonstration is given of the practical part of the school in that the finished product can be made from the beginning. There are a great many new and original patterns going into the power looms, enabling the students to see how their own designs appear in the finished fabric and illustrating very clearly the relation of the art, design and weaving departments, these three working together to one end. The chemical department is furnishing the students filling which they have dyed, and the cotton and woolen departments are furnishing yarns. The general studies, elements of mechanism, applied mechanics, projections and machine drawing are well represented.

COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

The Market for Cottonseed Products.

New York, N. Y., December 14.

The cotton-oil market is more active and stronger, the upward turn in lard proving a helpful factor in the situation. During the week one of the largest producing corporations purchased 10,000 barrels of summer yellow at 22½ cents, delivered here. This would indicate faith in the future and that prices will take an upward turn. The same corporation, it is stated, endeavored to secure 10,000 barrels more on same terms, but failed. The export trade is better, but ocean freights at 5s. 6d. are yet high and tend to check more active trading. January lard, Chicago delivery, is offered at 5.25 cents, and for May 5.45 cents. At this writing the indications are that lard will go higher. Tallow remains dull and unchanged at 3½ to 3 9-16 cents here, but the Chicago market is stronger, prime packer's tallow being quoted at 4 cents. A feature of the cotton-oil market during the last few weeks consists in the increased demand and output of compound lard, especially for domestic use, 3¾ cents to 4½ cents being quoted here, both for local and Western goods. Choice yellow for bleaching is yet a scarce article. Prime crude and butter oil are also in good demand, the scarcity enhancing their value. Prime crude for bleaching is wanted at 17½ cents, off yellow 20 cents bid, and 22¼ cents for bleaching yellow. Reports from the South are to the effect that the mills have abundance of good seed in stock. It would look as if the present will be the greatest producing season in the history of the business. The following statistics with regard to the export trade alone, notwithstanding that greater business could have been transacted with more favoring ocean freights, tell an interesting story. Exports of cotton oil for ten months of 1898, 33,848,824 gallons, valued at \$8,229,183, or 8,641,310 gallons more than in 1897, and \$1,876,363 greater value. Cottonseed cake, 747,620,567 pounds, valued at \$6,443,788, or 291,336,018 pounds more than 1897, and \$45,000 greater value. The increase in domestic consumption has been greater relatively. The following are closing prices: Crude, 17½ to 17¾ cents; crude loose, f. o. b. mills, 13½ to 14½ cents; crude loose, 10 to 13 cents; summer yellow, prime, 21½ to 22 cents; summer yellow, choice, 22½ to 23 cents; summer, off grades, 19¼ to 20 cents; yellow, butter grades, 25 to 27 cents; white, 26 cents; winter yellow, 27 cents, and salad oil, 28 to 29 cents. English refined oil is unchanged at 14s. 9d.

Cake and Meal.—Cake is nominally quoted at this market. Meal is on offer at \$20.85 short ton, and \$21.25 Boston. Consumers of millfeeding stuffs abroad purchase sparingly and prices are steady. Egyptian seed is firm, which, together with the cold weather, will have a tendency to strengthen the market.

Cottonseed-Oil Notes.

Cottonseed products in Texas vary but little in price, and the market is about steady. Receipts of seed are liberal at all the mills, and the various companies throughout the State are generally running their mills at their full capacity. The quotations at Houston are reported as follows: Prime crude oil, 13 to 13½ cents; prime refined summer yellow, 15 to 15½ cents; cottonseed meal, \$13 to \$13.50; cottonseed cake, \$13 to \$13.50; linters—

A, 2¼ cents, all f. o. b. mill at interior points in the State.

Cottonseed products in New Orleans continue to move in moderate volume, and no increase in business is expected until after the new year. At points of production mills are generally working up to their full capacity. There is a light export demand for both oil and cake and meal. Prices are easier. Receivers' prices are as follows: Cottonseed, \$5 per ton of 2000 pounds delivered on river bank from New Orleans to Memphis for good sound seed; cottonseed meal jobbing per carload at depot, \$17 per short ton of 2000 pounds; for export per long ton of 2240 pounds f. o. b., \$19, new crop; oilcake for export, \$19 to \$19.25, new crop, per long ton f. o. b.; crude cottonseed oil at wholesale or for shipment, strictly prime new-crop oil, crude, 12 to 13 cents per gallon loose f. o. b. tanks here; in barrels, 14 to 15 cents; cottonseed hulls delivered per 100 pounds, according to location of mill, 7½ to 10 cents; linters, according to style and staple—A, 2¼ cents; B, 2½ cents; C, 2½ cents; ashes, none. Mr. Nelvil A. Puech, in a letter to the Manufacturers' Record, says: "Owing to the scarcity of ocean freights, the market on cottonseed products is very, very weak. Sales of prime cake and meal have been made at \$18.50 per long ton f. o. b. vessel at this port, and off summer yellow refined cottonseed oil sold at 18½ cents f. o. b. vessel, January shipment. The offering of prime stuff is light, owing to the poor quality of cottonseed. Sales of crude oil have been made as low as 11 cents f. o. b. mills at Louisiana and Mississippi points."

In spite of the natural antipathy of the average individual to a knowledge of the flight of time, the very same average individual is usually fond of having somewhere near him an indicator of that flight. In other words, men and women find calendars useful and ornamental. The combination of the two qualities is had in the holiday publications of the Taber-Prang Company, of Boston and Springfield. Among the art books may be mentioned "Bermuda in June," "Firstlings of the New-Born Year," "Wedding Bells," "Violet Time," "At the Gates of Sleep," "The Old Missions of California," "Old Stories in New Attire," and "The Spirit of the Pine." These publications, in prose or verse, are the work of American authors, designers, lithographers and printers, and their distinct value in art extends also to the sumptuous calendars, which include such as "The Christian Endeavor," "Stately Lilies," "Audubon," "Flowers from Shakespeare's Garden" and "End of the Century Girls."

Mr. Leroy Springs, of Lancaster, S. C., president of the Eureka Cotton Mills, of Chester, S. C., writes that his company is adding 5000 spindles and making other improvements, as reported lately. Besides the improvements mentioned, there will be cards, drawing and roving machinery for the spindles, a complete sprinkler system, acrophor system, twenty-five new tenement-houses and four cotton warehouses to hold 6000 bales.

During the past year a large amount has been expended in improvements on the Cumberland & Pennsylvania Railroad, which extends between Cumberland, Md., and Piedmont, W. Va., a distance of thirty-three miles. The roadbed has been relaid with 80-pound rails, re-ballasted, while several new stations have been built, as well as bridges.

At the annual meeting of the Commercial Club of Knoxville, Tenn., R. J. Briscoe was elected president; R. H. Hazen and J. Allen Smith, vice-presidents.

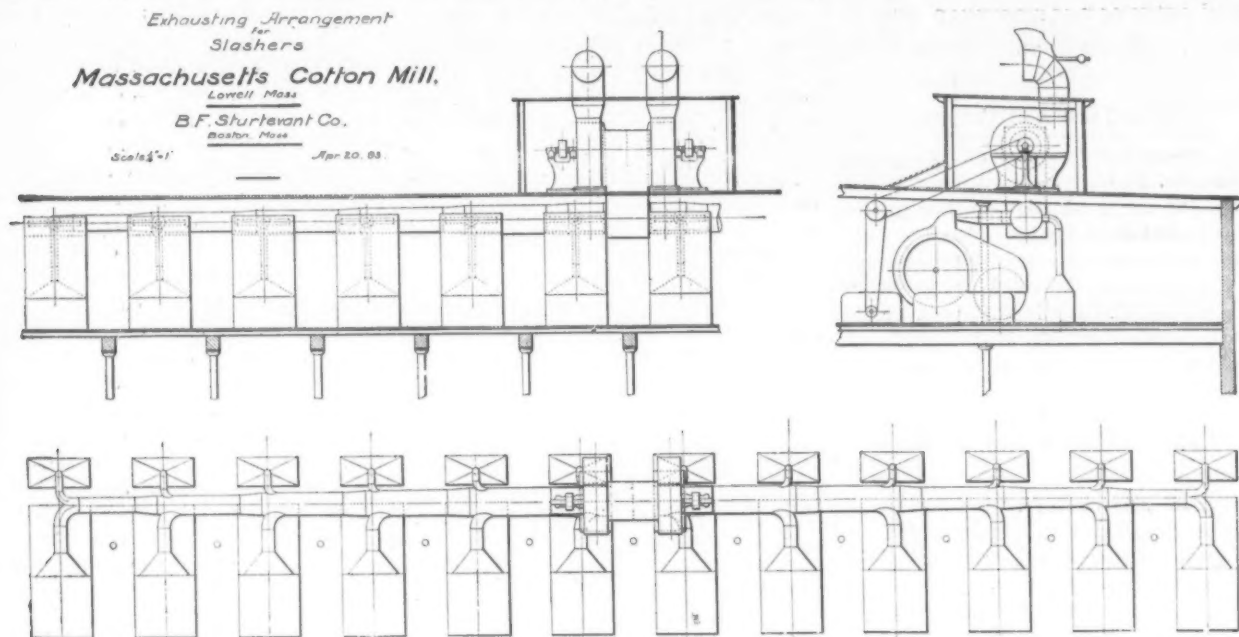
MECHANICAL.

Removal of Steam from Slasher Hoods

Much as the cotton manufacturer may desire to moisten the atmosphere of his spinning-room, he is even more anxious to decrease the humidity of his slasher-room. Here the constant production of vapor is a continual inconvenience which the ordinary method of ventilation does not overcome. Natural ventilation is dependent upon the difference of temperature

type, having an inlet through which the air and steam are drawn and an outlet pointing upward through which it is discharged.

An excellent illustration of the application of fans for this purpose is herewith presented by the B. F. Sturtevant Co., of Boston, Mass. This company has been directly interested in the designing and installation of exhausting arrangements of this character in a number of plants. The illustration referred to is taken from its catalogue No. 106.



between the external air and the air within the ventilating hood. When first started up in the morning, and before things get well heated, there is naturally a very sluggish movement, with the result that the atmosphere within the room becomes charged with moisture, and the least cooling, as in contact with cold walls and ceiling, causes a profuse deposition of moisture.

It requires surprisingly little moisture to saturate a large volume of air. Under ordinary conditions the relative humidity of the atmosphere is about 70 per cent., that is, it contains 70 per cent. of vapor of water which it is ultimately capable of taking up. If we consider a room having a cubic contents of say 100,000 cubic feet filled with air at 72 degrees temperature and 70 per cent. humidity, it will require only about thirty-seven pounds of vapor to saturate it. If the temperature be higher, say 82 degrees, and the humidity still remains at 70 per cent., the amount of vapor which can be absorbed by the 100,000 cubic feet will be about fifty pounds. As the temperature rises its absorptive power for moisture very rapidly increases.

The average temperature of nine slasher-rooms, regarding which information has been collected, was reported to be 84 degrees; that is slightly above the basis of estimate just employed.

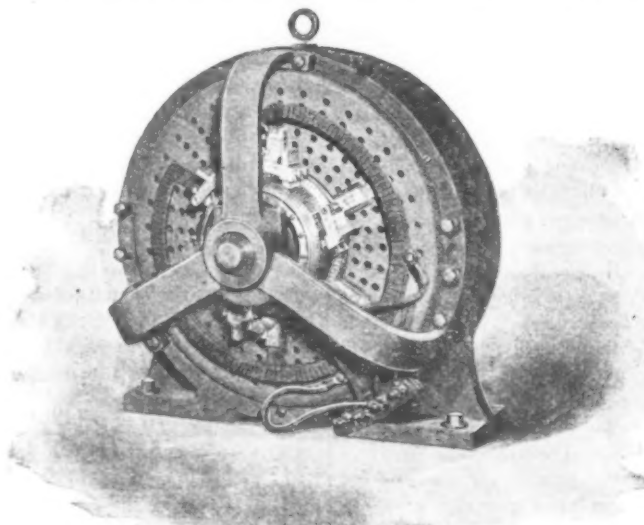
In these rooms the average amount of water in the size used was 215 pounds per hour per slasher. Evidently in the course of an hour all of this water must be vaporized. As this amount of water is 4.3 times that required to saturate 100,000 cubic feet under the conditions above stated, the amount of vapor given off by a single slasher is sufficient to saturate 430,000 cubic feet of air having an initial temperature of 82 degrees and an initial humidity of 70 per cent.

If the atmosphere is to be kept clear of visible moisture and rapid drying is to be secured, it is manifest that positive means must be employed to promote rapid circulation of air through the slasher hoods. The most natural device applied for this purpose is the fan. For the best results this should be of the enclosed

The illustration shows the arrangement employed at the Massachusetts Cotton Mill at Lowell, Mass. Here the slashers are hooded in the usual fashion (enclosing both cylinders), while a separate connection is made to the size box. The pipes from the individual slashers connect, as will be noted, to two horizontal mains, which are supported close to the ceiling, and which midway of the length of the building enter a common chamber, which is in connection with the inlets of the fans placed upon the roof above. These two fans are driven independently by belts and discharge through independent swivel ventilator tops. This illustration shows clearly that this arrangement can be readily adapted to old slashers, and that it in no way interferes with the regular operation of the machine.

A New Motor.

This new motor is built by the Triumph Electric Co., of Cincinnati, Ohio, especially for direct connection to machine



A NEW MOTOR.

tools, printing presses, line or counter-shafts, etc.

This machine embodies the standard Triumph construction throughout, but is an exceptionally compact design and con-

structed for direct attachment at minimum expense.

Both armature and pole pieces are of laminated steel. Armature and commutator are mounted on an independent spider, which is bored to fit shaft of tool to be driven. Ample room between spider and core is left for ventilation, and radial apertures are provided running from center to circumference for the same purpose. So perfect is the design that the temperature rise of one of these machines under 10-hour continuous

run, loaded, was less than ten degrees.

Cast-iron perforated plates are fitted on each side of frame, protecting both fields and armature, and in special cases the commutator has been similarly protected, although this is not ordinarily necessary.

The brushes are of carbon, and are clamped positively in holder, and the construction is such that the tension can readily be adjusted. This type of holder is far superior to that of any depending on a sliding contact between carbon and holder.

The bearings are of bronze, of the ring oiling self-aligning type, and are carried on three arm spiders attached to frame, making a machine entirely self-contained and very compact.

Oil wells of ample capacity are provided. The machine is built inverted as a ceiling motor, and simple and efficient belt tightener being provided in that event.

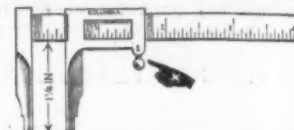
The entire construction is of the latest and most approved type, and in full ac-

cordance with the reputation of the Triumph Electric Co. for strictly first-class apparatus.

These machines are made in six sizes, all based on 100 revolutions per minute.

Handy Pocket Caliper.

This very handy pocket caliper has an eccentric to fasten the sliding jaw after the measurement is taken or after the caliper is set to a certain size. This arrangement makes the caliper especially adapted for pocket use, as it makes it very compact, not having a tightening screw to project. This caliper is only made in the four and six-inch style, either



HANDY POCKET CALIPER.

graduated in sixty-fourths and sixteenths, or in sixteenths with vernier to read thirty-seconds, sixty-fourths or 128ths, and offset for inside measurement. Anyone having any measuring or fitting to do should address E. G. Smith, of Columbia, Pa., for illustrated catalogue showing a large variety of sliding calipers.

High-Pressure Valves.

The extra heavy pressure Scott gate valves, as illustrated, are manufactured by the Roe Stephens Manufacturing Co., Detroit, Mich. These valves are made for the very heaviest steam working pressure, and were designed to fill a demand for a more durable and satisfactory article than is commonly used. That they are appreciated is evidenced by the fact that the company is making large shipments to the home and foreign trade, the government being among its most liberal patrons.

These valves are made to stand a high working pressure on steam, water, oil or gas mains, being tested to 1000 pounds to the square inch. By the peculiar con-



SCOTT GATE VALVE.

struction of their patent cylindrical wedge and full circular bearing upon the back of the disk the wear is taken from the face and seat, thus insuring a perfect seating and the impossibility of the disks springing, bending or getting out of shape. The disks are raised by their lugs coming in contact with corresponding shoulders on the wedge. The lugs are so arranged that the bearings of one disk slightly rotate upon the other, so that the least movement on the stem releases one disk in advance of the other, making them easy to operate under the heaviest pressure.

For complete valve catalogue, mail request to the manufacturer at Detroit, or to the Scott Valve Co., Chicago.

Combined Planer, Matcher and Molder

This new No. 8 planer, matcher and molder is built by the Egan Co., 228 to

finest steel, carefully ground and polished, and running in long self-oiling bearings lined with best material. The bearings are so constructed as to continually flood

The feed is strong and positive, driven by an improved system with large gears. The feed can be stopped and started instantly by means of

12-inch straight knives for use when working narrow stuff, set solid milled five-sixteenths-inch matching cutters for flooring, set of solid milled beading bits, and countershaft.

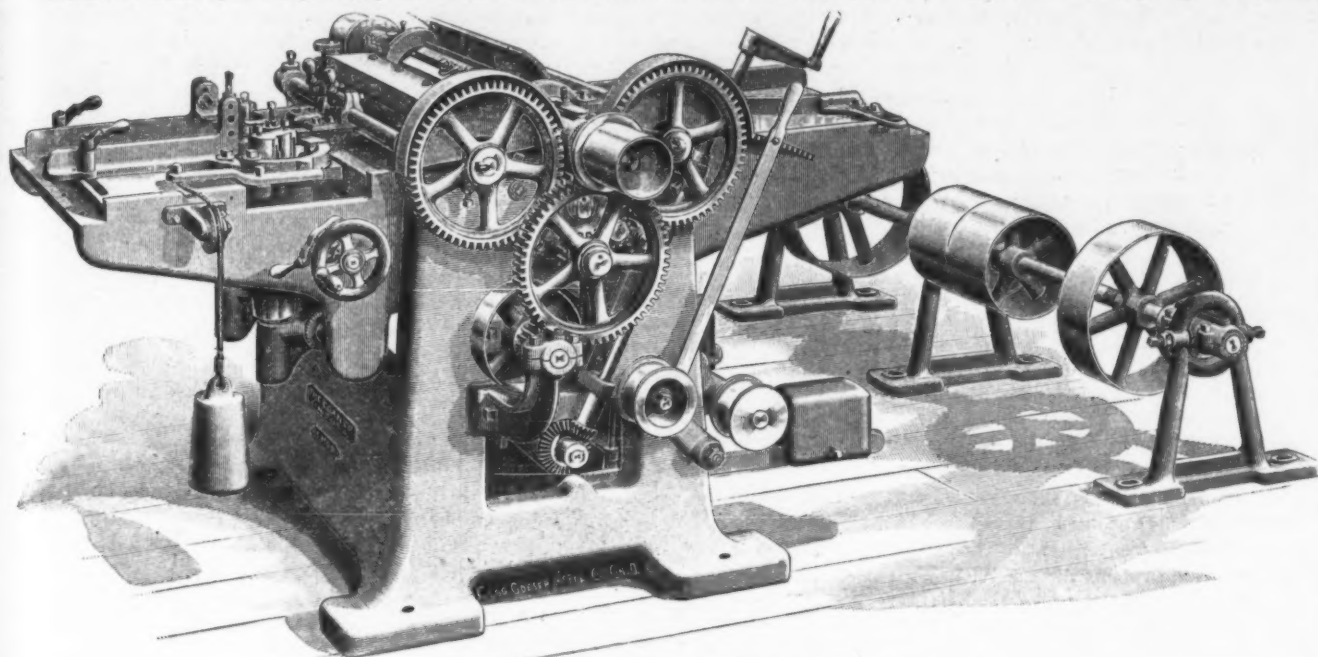
Something New in Telephones.

The small portable telephone illustrated is complete in itself; a very handy affair for an invalid desirous of being connected to the regular telephone line, or for conductors of street cars, linemen and inspectors. Its weight is only nine pounds. In its small compass is found a complete outfit, battery, transmitter, receiver, bell, generator, etc. The Viaduct Manufacturing Co., of Baltimore, Md., is constantly devising new appliances of this nature.

Combination Saw Table.

The accompanying engraving represents a new combination saw table built by the Williamsport Machine Co., branch of the American Woodworking Machine Co., Williamsport, Pa. This machine is intended for ripping, cross-cutting, mitring, dadoing, plowing, grooving, etc.

The entire machine is constructed of iron and steel with the exception of the table, which is made of glued-up alternate strips of ash and birch and secured underneath with heavy iron battens planed perfectly true. The table moves



NEW NO. 8 PLANER, MATCHER AND MOLDER.

248 West Front street, Cincinnati, Ohio. It is designed to meet the requirements of small mills desiring a combined machine for planing, matching and molding, capable of doing both light and heavy work in a first-class manner, limited only in quantity of work turned out. It is strongly and compactly built, occupying the smallest floor space practicable, about 9x5 feet.

The frame is heavy and broad at the base, possessing great strength. It planes one side up to twenty-four and one-quarter inches wide and up to six inches thick, and matches twelve inches wide. It is especially adapted to the manufacture of moldings, casing, base boards, etc., beyond any other small machine, because fitted with adjustable pressure-bars and slotted cylinder. It is almost instantly changed from a planer and matcher to a planer, or vice versa. The bed is fitted into the frame in long dove-tailed slides with strong adjustable gibs.

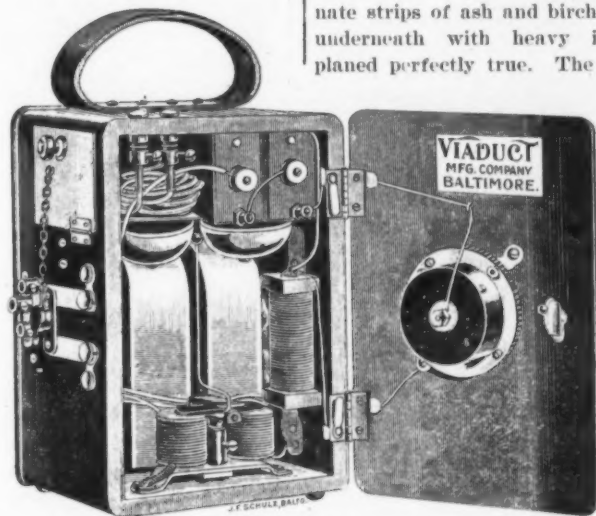
The cylinder is a solid steel forging, and is belted at both ends. It has four sides, with lips on each face to act as chip-

the journals with oil. The swinging bar before the cut is very heavy, arranged to act as a chip-breaker and follow the path of the knives very closely at all times, preventing any tearing out on knotty or cross-grained stock, and assuring smooth work when taking either a light or heavy cut.

The pressure-bar after the cylinder is yielding, readily adapting itself to the finished surface. Both pressure-bars before and after the cut are adjustable to and from the knives, a point very highly appreciated by practical millmen.

The matching works are very substantial. Both spindles are hung upon the bed, raising and lowering with it, not requiring separate adjustments. The matcher-heads are made of gun metal and furnished with solid milled cutters.

The spindles, of the best steel, are mounted in improved self-oiling step bearings. Adjustable pressure-feet hold the material firmly down while passing between the matcher-heads. The left-hand spindle is fitted with an improved weighted matcher clip, which adjusts it-



SMALL PORTABLE TELEPHONE.

binder convenient to the operator. A substantial metal guide extends clear through the machine, and reliable provision is made for holding the stock

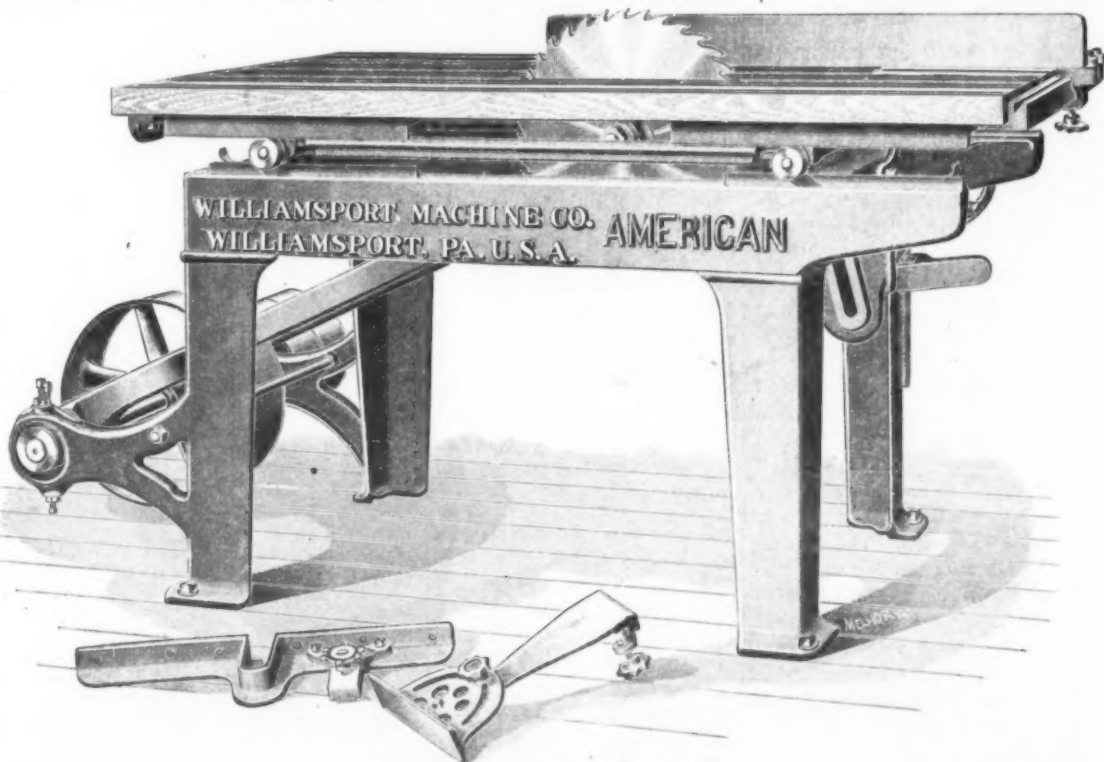
on differential rollers, which cannot get out of position, as they are connected by a light movable carriage underneath the main table, making it very easy to operate.

The swinging frame, which carries the saw arbor, is very long, which gives opportunity to use a driving belt of good length. This frame is hung on the boxes of the countershaft, so that the belt always remains the same length, whether the saw is up or down.

The saw is raised and lowered by means of the hand-wheel at front right-hand side of machine.

By means of an eccentric lever the table can be locked rigid, making a regular rip-saw table, as shown in cut. By removing the ripping gauge and substituting a cut-off or mitring gauge and unlocking the table, the machine is converted into a complete cut-off or mitring saw table. It will cut off twenty-five inches wide and rip eighteen inches wide. The table is thirty-four inches wide by fifty-one inches long. Each machine is furnished with a 16-inch rip saw, one 16-inch cross-cut saw, one ripping gauge, one mitring gauge and one cut-off gauge. All gauges have an independent adjustment for keeping them in line with the saw. For a slight additional cost an expanding dado head can be supplied.

For further information and price address the company or its salesrooms at 109 Liberty street, New York; 94 Pearl street, Boston, Mass.; 45 South Canal street, Chicago, Ill., and 3101 Chestnut street, Philadelphia, Pa.



NEW COMBINATION SAW TABLE.

breakers. Two sides are slotted—a great advantage, as beading or molding knives can be used in any position desired. The journals are of the best re-

self, following the edge of the cutter very closely and insuring an even pressure not given by springs and as perfect work on the edge of the board as on its surface.

firmly against the guide while fed through.

Each machine is usually furnished with set of 24½-inch straight knives, set of

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

LUMBER MARKET REVIEWS.

Baltimore.

Office Manufacturers' Record,
Baltimore, Md., December 15.

There has been a fair volume of trade throughout most departments of the local lumber market during the past week, and prices have ruled about steady, with no material change to note. Receipts of North Carolina pine have been fair, and in air-dried lumber there is about enough to supply the demand at the moment. Boxmakers and planing mills are in the market, and have been purchasing freely to supply immediate necessities. Kiln-dried North Carolina pine is in good demand, with stocks light and prices firm for all grades. The market for white pine is firm, with a fair trade demand, and stocks not excessive. Georgia pitch pine is in good supply, and sales to out-of-town buyers have been liberal, with values steady. The hardwood market is quiet, with no urgent demand from the usual sources, and not much business in this line is looked for with local manufacturers until after the new year. The foreign demand for hardwoods is light, and at this period of the season business is usually quiet. There are a number of inquiries from the United Kingdom and Continent, however, which will likely develop actual business in the near future.

Savannah.

[From our own Correspondent.]

Savannah, Ga., December 12.

A fair volume of trade has been developed during the past week in nearly every branch of the local lumber industry. The demand from Northern sources continues active and prices firm for desirable stock. At milling sections stocks of lumber are considerably reduced, and manufacturers find it difficult in some cases to fill orders promptly. At all interior towns in this section of the State there is a good trade in progress for all wood products, while prices are very steady at quotations. At the ports of Darien and Brunswick there is a good domestic and foreign demand for lumber, and mills are all filled with orders. The market here on Saturday was firm at the close, with quotations as follows: Minimum yard sizes, \$9.20; car sills, \$10; difficult sizes, \$11 to \$12; ship stock, \$15 to \$16.50; sawn crossties, \$8.25; hewn crossties, 20 cents per tie, all f. o. b. The shipments of lumber during the past week have been of the usual volume; schooner Edward Stewart for Bangor, Me., with 325,532 feet of pitch-pine lumber; schooner H. A. Berwind for Philadelphia with 714,006 feet. New York steamers carried out 468,900 feet, Boston steamers 38,900 feet, Baltimore steamers 128,949 feet. The local demand for lumber and other building material from contractors and builders has been very good lately. Real estate is looking up, and the outlook much brighter. More sales are being made, and there is a good inquiry for property. Shipments of lumber from nearby ports are larger than usual, and there is a fair offering of handy-sized vessels. Rates from this and nearby ports are \$4.50 to \$4.75 for a range including Baltimore and Portland, Maine.

Beaumont.

[From our own Correspondent.]

Beaumont, Texas, December 12.

The general improvement which now prevails throughout the lumber industry at the Atlantic and Gulf ports is strongly

in evidence in this section. During the present month there has been an active and pronounced strength in the lumber market in its various avenues. From the usual sources the demand is most decided in character, especially from the Northwestern sections, and numerous inquiries from commission houses are received daily, while the demand from dealers is active. At points in this State the general trade has been somewhat restricted by inclement weather and a temporary shortage in cars. From the southwestern section of this State, however, there is a fair volume of business reported, with receipts of timber orders still coming to hand in satisfactory numbers. As to the list of values, there is no change, the tone of prices being firm for bill stuff, while yard stock is a trifle easier. The foreign export trade has been rather quiet, but at the moment there are a number of inquiries coming to hand, and the feeling in regard to future business is that after the holidays an active trade in this direction will set in. The offering of desirable tonnage is light, and owing to stormy weather on the Atlantic coast vessels have been detained. Rates of freight to United Kingdom and Continent are still higher than shippers like to pay, but with a better offering of handy-sized vessels more business would materialize.

Nashville.

[From our own Correspondent.]

Nashville, Tenn., December 12.

With the decided improvement in the lumber industry at all primary points throughout the country this market is now getting its full share of the volume of business. As a hardwood center and point of distribution it is among the most prominent in the country, and the volume of trade recorded for the year about closing is very satisfactory in many respects to those engaged in the lumber business. The demand for all hardwoods has ruled fairly active during the past three months, and for poplar especially prices have ruled firm, with an advancing tendency. The Nashville American, in reviewing the lumber market, comments on the movement in yellow poplar as follows: "In the export trade this lumber, in conjunction with the other timbers of this section, is sent in large quantities to England and Germany, and even to Norway, which is recognized among the European nations as a great lumber country. Mexico and Canada also come in for their share of the trade. One firm in this city has averaged a car a day in exports for the last sixty days, all of which was sent to the markets of Germany. Nashville is the purchasing point for poplar for a number of Eastern factories, who find this lumber the most serviceable in their particular lines. One sewing-machine factory has a standing contract with a Nashville firm for several million feet a year." From 80,000,000 to 100,000,000 feet of hardwood is shipped yearly from this section, and during the past year at all milling sections the mills have been very busy, while at the moment stocks of poplar and other woods are light, and in some cases badly assorted. The volume of business in oak is expanding very materially, while the foreign demand is becoming greater every season. Stocks of oak are very light and values for dry stuff are firm and from \$1.50 to \$2.50 a thousand feet higher. The demand during the year from box factories has been better than usual, and for all lumber adapted for the use of boxmakers prices have been better. The output of sash, door and blind factories have shown up better than last year, while planing mills furnishing this class of dressed lumber have been busy, generally running at

their full capacity. All other woodworking concerns in the city are busy, being generally well supplied with orders.

Lumber Notes.

Salem Iron Works, Salem, N. C., wants to correspond with buyers of shuttle-blocks.

The saw-mill plant of the Hickok Lumber Co. at Ogemaw, Ark., was destroyed by fire on the 4th inst. The loss is estimated at \$20,000, with insurance on the mill of \$18,000.

The Winston Furniture Co., of Winston, N. C., was incorporated last week, and will begin operations the first of the new year. The company will manufacture all kinds of furniture.

Shipments of lumber from the port of Charleston, S. C., for the week ending December 9 were reported as follows: Schooner George H. Ames for Boston with 300,000 feet of lumber, and steamer, Carib for the same port with 17,148 feet.

A new and paying industry has been developed in Wharton, Texas. The lower portion of Wharton county furnishes a first-class article of cedar, which is bought there and shipped to Liggett & Co., of Lewisburg, Ky., and there made into pencils.

Messrs. Reed Bros. & Co., stave and hardwood dealers at Norfolk, Va., have issued a handsome calendar for 1899. The calendar presents a three-quarter figure of a Florentine girl, which is an unusually fine lithographic production from the painting by L. Haselbach.

Through the efforts of the Commercial Club of New Haven, Ky., the American Lumber Co., of Pittsburg, will locate its plant at Lyons Station, two miles from New Haven on Louisville & Nashville Railroad. The mills will be erected at once, and when completed will give employment to over 100 men.

The Apalachian Land & Lumber Co., of Apalachia, N. C., will open bids January 2 for the cutting and logging of 35,000 to 50,000 feet of logs per day to tramway skids, distance not to exceed one and one-half miles. Bids may be for cutting and logging or for each separately. Bond will be required from contractor.

Mr. G. P. Howsee, of Moss Point, Miss., on the 7th inst. shipped four carloads of sweet-gum timber to Germany via New Orleans. The sticks averaged thirty inches in diameter and fourteen feet in length. This is the first shipment of the kind, and is interesting as an experiment, as the gum wood is very hard and capable of a high polish.

Mr. W. R. McKenney, of Petersburg, Va., sold last week to Mr. R. Lee Cobb, a prominent saw-mill man of Burgess P. O., Dinwiddie county, the standing timber on 1892 acres of land in Dinwiddie county. This sale covers from ten millions to twelve millions of feet of lumber. Mr. Cobb will commence to saw from these tracts about February 1.

Receipts of building material at the port of New Orleans for the week ending December 9 were as follows: Lumber 1,412,000 feet, shingles 108,000, laths 20,000, oak staves 204,550 and cypress staves 9000. The receipts of lumber for the season amounted to 30,432,700 feet of lumber, against 26,595,000 feet for the corresponding period last year.

Messrs. A. Knabb & Co., owners of the large stave and lumber plant at Krugg, Garrett county, Md., have given out the contract for the lengthening of their narrow-gauge railroad from Hoyes Run, which is the present terminus of the

road, to Swallow Falls. The road will eventually be completed to Oakland, Md., when some of the most valuable timber found in Garrett county will be placed on the market.

The steamer Stilwater cleared from New Orleans on Sunday last with 400,000 feet of lumber for Cuba, being the first shipment of part of the large contract awarded by the government to J. H. Hinton, of Lumberton, Miss. Another steamer will leave in a few days. Shipments of lumber on account of the above contract will be made direct from Ship Island. Messrs. Woodward, Wight & Co. are the shippers.

Timber lands in Garrett county, Maryland, are now in great demand, and during the present month several large tracts have been sold. Pennsylvania capitalists are negotiating for the purchase of the Maynadier and other tracts of land situated near Grantsville, in Garrett county, amounting in the aggregate to about 6000 or 7000 acres. In the event of the purchase, the parties will erect one of the largest lumber plants in the county.

Among the clearances from the port of Jacksonville, Fla., during the past week the following are reported: Schooner Robert W. Dasey for Providence, R. I., with a cargo of 330,000 feet of cypress lumber; schooner Island City with 303,000 feet of cypress lumber and 163,000 shingles for Philadelphia; schooner Melissa A. Willey for Barbadoes, B. W. I., with 104,144 feet of yellow-pine lumber and 65,700 shingles; barkentine Bruce Hawkins for Bath, Me., with 412,834 feet of yellow-pine lumber.

One of the largest contracts for lumber ever let in the Southern States was secured recently by J. H. Hinton, the manager of the J. J. White Lumber Co., of Lumberton, Miss., and Woodward, Wight & Co., of New Orleans. The contract calls for 20,000,000 feet of yellow-pine lumber to be delivered within two months at ports in Cuba and Porto Rico. The order further specifies that the government will give to the same contractor further orders during the next four months which will likely amount to fully 100,000,000 feet of lumber. It is stated that besides this order, private contracts for fine lumber for Cuban constructions amounting to 100,000,000 feet will be let in a short time.

Pullman Exhibition Train.

Every one remembers the magnificent passenger train which the Pullman Palace Car Co. exhibited at the World's Fair, Chicago, and subsequently at Atlanta, Nashville and Omaha. By special arrangement the Pennsylvania Railroad Co. has secured this model train for its personally-conducted tour to California. It will be the first trip the train has ever made in service, and as it will be the home of the tourists throughout the entire tour, they may feel assured of luxurious accommodations. The train is lighted by electricity, and is made up of composite, dining, sleeping, compartment and library-observation cars. Among its conveniences are a bathroom, barber shop, refreshment buffet and a piano.

The tour will leave February 9, and will cover a period of thirty-five days, nineteen of which will be spent in California. Among the points of interest to be visited are Mammoth Cave, New Orleans during Mardi Gras Carnival, Los Angeles, San Diego, Coronado Beach, Riverside, Redlands, Santa Barbara, Monterey, Mount Hamilton, Menlo Park, San Francisco, Salt Lake City, Glenwood Springs, Colorado Springs, Manitou and Garden of the Gods, Denver and Chicago.

Round-trip rate, covering every item of necessary expense, \$400; \$395 from Pittsburg.

For detailed itineraries and full information apply to ticket agents, or address B. Courlander, Jr., passenger agent Pennsylvania Railroad, Baltimore, Md. †

PHOSPHATES.

Phosphate Markets.

Office Manufacturers' Record,
Baltimore, Md., December 15.

There is a slightly better tone to the market for phosphate rock, and local dealers are looking for an improvement in the volume of business after the new year. Manufacturers of fertilizers are purchasing, and the several deals and improvements in factories concluded and projected will somewhat enlarge the volume of business in future. The following record of charters during the week indicate a fair movement in phosphate rock and other fertilizer ingredients. In the New York market the weekly record is as follows: Schooner Aloha from Fernandina to Elizabethport, N. J., with phosphate rock on private terms; schooner Winnegance, 251 tons, from Baltimore to Portland, Me., with phosphate at \$1.70 net; schooner W. C. Tanner, 982 tons, from Pensacola to Cartaret with phosphate rock at \$2; schooner D. J. Sawyer, 288 tons, from Charlotte Harbor to Wilmington, N. C., at \$1.80; a British bark, 626 tons, from Pensacola to Fort de France with fertilizer at \$3; schooner Blanche H. King, 1022 tons, from New York to Port Royal, S. C., with kainit and potash in bags on private terms, and schooner Anna L. Mulford, 518 tons, from Charleston, S. C., to Baltimore with phosphate rock at \$2. From points of production in the various phosphate fields the advices show a fair development, with a corresponding demand both domestic and foreign. In South Carolina the domestic shipments from Charleston from September 1 to December 9, 1898, amounted to 33,325 tons, against 23,963 tons for the corresponding period in 1897. In the Florida field investors are now seeking out new territory or purchasing plants that have been idle for some time, and miners in both the land rock and pebble sections are generally working their deposits with more enterprise than usual. Prices continue very steady for Florida rock. Shipments from the ports have been fair so far during the present month. From Fernandina the total shipments for eleven months ending November 30 amounted to 179,858 tons, of which 178,233 tons were foreign and 1625 tons domestic. The estimated shipments from Fernandina for December are placed at 15,000 tons. The movement in Tennessee is quite active, and prospectors around Gallatin have discovered what is thought to be valuable deposits of phosphate rock. The miners at Mt. Pleasant are enjoying a good demand for their output.

Fertilizer Ingredients.

There is a moderate offering of ammoniates, and the market has ruled quiet and steady during the week. The Eastern demand is not quite so pronounced, but there is still some business with that section. There is no demand from Southern sources. In the West values are firm for blood and tankage, and stocks sufficient for the demand. Nitrate of soda and sulphate of ammonia are firm, with the offering moderate, both for spot and future delivery.

The following table represents the prices current at this date:

Sulphate of ammonia (gas)	\$2.60	@	—
Nitrate of soda	1.65	@	1 70
Blood	1.80	@	1 82½
Hoof meal	1.70	@	—
Azotine (beef)	1.85	@	—
Azotine (pork)	1.85	@	—
Tankage (concentrated)	1.60	@	1 62½
Tankage (9 and 20)	1.65	@	and 10
Tankage (7 and 30)	17.00	@	17 50
Fish (dry)	20.00	@	—
Fish (acid)	12.00	@	—

Phosphate and Fertilizer Notes.

The Austrian steamship Betty, from Port Tampa with 1806 tons of Florida

phosphate rock, arrived at New Orleans last week in transit for Genoa. She will finish loading at New Orleans for Trieste and Venice.

Messrs. Hubbard & Co., fertilizer manufacturers, of Baltimore, have leased a tract of land 100x275 feet on the Canton water front in that city from the Canton Company. The firm will construct a pier 150 feet long and erect a three-story building on the property, in which will be installed the latest improved machinery.

The shipments of phosphate rock from the port of Charleston, S. C., to domestic ports for the week ending December 9 were as follows: Schooner Woodward Abrahams for Baltimore with 994 tons; schooner Mary Curtis for Richmond, Va., with 560 tons, and schooner Lina C. Kaminski for New York with 600 tons. The total shipments from September 1 to December 9, inclusive, amounted to 33,235 tons, against 23,963 tons last year.

The phosphate shipments from Fernandina, Fla., for the month of November, as reported by E. D. Lukenbill, were as follows: For Rotterdam steamers Majestic with 3600 tons and Theresa Heyman with 2150 tons; steamship Brattenborg for Stettin with 4560 tons; steamship Hillcraig for Hamburg with 3200 tons and steamship Roehampton for Gotenburg with 2000 tons and for Aberdeen with 700 tons; total, 16,210 tons; previously reported, 163,643 tons, making a grand total for eleven months of 179,858 tons. The estimated shipments for December are placed at 15,000 tons.

The stockholders of the Rasin Fertilizer Co., of Baltimore, at a special meeting held on Monday last, accepted the proposition made by the Virginia-Carolina Chemical Co., of Richmond, Va., for the purchase of the company's plant in Anne Arundel county, Maryland. The offer made was \$160,000 for the factory of the Rasin Company and a price for the merchandise which will show a surplus to the stockholders. The Virginia Chemical Co. has also purchased the Monumental Chemical Works, adjoining the Rasin plant. The acquisition of the two plants gives the Virginia Chemical Co. an ownership of twenty-seven factories. The company has a capital of \$12,000,000. The company will continue to operate their new purchase.

The mineral production of Alabama in September last, according to the report of State Geologist Eugene H. Smith, was 539,380 tons of coal, 131,658 tons of coke, 80,245 tons of pig iron, 170,607 tons of iron ore, 39,281 tons of limestone and dolomite, 9033 barrels lime, 1409 tons of bauxite.

THE "ROYAL LIMITED."

Most Superb Daylight Train in the World.

The "Royal Limited," the imperial train of the famous Royal Blue Line, running between New York, Philadelphia, Baltimore and Washington, is presented to the public as the climax of 19th century trains. Although there are nine fast trains daily in each direction between these cities, in the Royal Blue Line series, all elegantly equipped and making phenomenally fast schedule, the management of the Royal Blue Line, consisting of the Baltimore & Ohio Railroad, Philadelphia & Reading Railway and Central Railroad of New Jersey, realizing the value and class of travel between the nation's metropolis and its Capital, at once requiring the highest standard of railroad equipment that can be furnished exclusive for first-class travel, as well as the corresponding quickening of time, has been induced to equip two trains with the very latest patterns of Pullman cars, which are scheduled to make the entire distance in the remarkable time of five hours.

The "Royal Limited," properly speak-

ing, is a dual train, composed of observation parlor, buffet smoking and dining cars, the entire equipment being especially made for this service by the Pullman Company. The two trains are exact counterparts of each other, and leave New York and Washington simultaneously at 3 P. M., arriving destination 8 P. M.

The parlor cars—"Empress," "Czarina" and "Queen"—are superbly finished in vermilion wood, with an inlay of Persian design. The ceiling is of royal blue and the upholstery of the same color, except in the ladies' toilet, which is of dark olive green, the ceiling decorated to correspond, the drawing-room being finished in harmony with the main parlor of the car. The general design of the interior of the main parlor is Persian, whilst in the drawing-room and ladies' toilet the design is renaissance. A beautiful effect is given both to the exterior and interior of the cars by oval windows, with opalescent glass placed in the toilet-rooms and passageways. The cars are the most palatial and largest ever built. They are seventy feet in length, with every modern improvement and appliance, including wide vestibules with anti-telescoping device, empire deck, steam heat, Pintsch gas, air-pressure water system, and have a capacity for thirty-four seats.

The unusually large space devoted to the ladies' dressing-room is a novel feature of the car. It is most beautifully furnished in dark olive green, the ceiling being decorated to correspond. It is provided with dresser with large plate-glass mirror, on each side of which are cozy corner seats, and in another corner is a bookcase and stationary washstand. The room was especially designed for the comfort and privacy of lady patrons.

The observation smoking cars—"Jupiter," "Mercury" and "Neptune"—are of the same general appearance on the exterior as the parlor cars, except that the observation end is recessed with a deep platform. The full seating capacity of each of these cars is thirty-three, including fourteen chairs in the smoking compartment. The parlor compartment is finished in vermilion, richly inlaid, the ceiling in blue and aluminum, and the chairs upholstered in royal blue. The smoking compartment is finished in Circassian walnut, exquisitely inlaid; the chairs upholstered in olive green leather; the ceiling of red and gold, the general design being of Italian renaissance. The car is provided with writing desk and material—a very important necessity to the traveler.

The buffet is also one of the exquisite features. It is provided with the daintiest china and cut glass, and the larder is supplied with all the choicest viands conducive to an appetizing luncheon.

The dining cars are the very latest patterns which have left the shops of the well-known name of "Pullman." These cars, the "Waldorf" and "Astoria," are placed in commission bearing the names of one of the greatest hostilities in the world, far-famed for its excellent culinary triumphs. The service, which is under the direct control of the Passenger Department of the Baltimore & Ohio Railroad Co., is unsurpassed. The menu consists of every delicacy in season, daintily served and tempting to the appetite of the most pronounced epicure.

In the introduction of the "Royal Limited," the Royal Blue Line again asserts its claim of superiority of passenger train service in the oft-repeated phrase—"Finest and Fastest Series of Trains in the World."

President Tuttle on the Proposed New Freight Schedule.

In a recently published interview, President Lucius Tuttle, of the Boston & Maine Railroad, effectually disposes of the so-called "Baltimore plan" to reorganize the present basis of freight schedules adopted by the railroads of the United States by substituting a tariff of so much per ton per mile.

This scheme is the outgrowth of an effort on the part of the business men of Baltimore to forestall any unfavorable result upon the export trade of that city growing out of the enforced dissolution of the Joint Traffic Association, and it is announced that they intend to petition Congress to enact a law placing railroad freight rates on that revolutionary basis.

President Tuttle, while pointing out that the idea is wholly impracticable, and giving as his opinion that it will be a long time before the present "block" system of making railroad freight tariffs in

this country is superseded by any other arrangement, at the same time presents some logical and forceful arguments in favor of large railroad systems, of which the Boston & Maine is itself an excellent example.

In the course of his statement, Mr. Tuttle says: "Competition between roads brings about that rate-cutting which may prove disastrous to those for whose benefit it was ostensibly devised. The competition here is no longer that of one town against another, but a contest in which New England is pitted against every part of the country in the attempt to market its products and manufactures in every part of the world. A great system of railroads can give to every customer upon its line equal territorial facilities for marketing its goods, and through its connections with similarly powerful systems makes its customers competitors everywhere under the most advantageous conditions. The effort of the railway manager today is directed to the cheapening of rates so that his customers can get their goods into the markets of the world so as to compete with those situated upon other systems, rather than to get more money out of the shippers or receivers upon his line. Thus the competition becomes territorial rather than local, and a great system, embracing a section, can best deal with the question and give those within its jurisdiction the better and cheapest service."

"The railroad business is not in a satisfactory way, notwithstanding the efforts of the interstate commission and the use of various expedients from which much was expected. The solution of the problem is one that taxes the ingenuity of practical railroad men and they are very much at a loss what to do. Is it reasonable to suppose that others who possess no natural aptitude for the work or experience in it, can settle this matter as is proposed by the Baltimore plan? When each section of the country has its own transportation system whose interest in establishing fair rates would be as great as the maintenance of them afterward, then will the troubles now complained of disappear largely and a better state of things prevail for everyone concerned."

TRADE NOTES.

Award for Emery Wheels.—The American Emery Wheel Works, of Providence, R. I., has lately received the highest award for superior emery wheels exhibited at the International Exhibition recently held in St. John, N. B., Canada.

Ball Engines.—Recent sales of the Ball Engine Co., of Erie, Pa., included two 70-horse-power engines, each direct connected to Siemens-Halske generators, for the New York Trade School; two engines for St. Agnes Hospital, Philadelphia, direct connected to Eddy dynamos, and a 150-horse-power tandem compound engine for water-power company at Billings, Ont.

Government Work.—Messrs. Thomas Carlin's Sons, of Allegheny, Pa., have considerable government work on hand at this time. The firm is furnishing a number of castings and some special steel plates which require pressing at Herr's Island Dam, near Pittsburgh. An order also on hand calls for an improved concrete mixer for St. Paul, Minn., and a heavy grinding pan for Montana.

Chicago Belting Company.—The Southern business of the Chicago (Ill.) Belting Co. is now and will hereafter be handled by the C. T. Patterson Co., Limited, of New Orleans. A complete stock of the Chicago Belting Co.'s manufactures will be carried, so that prompt and reliable service and lowest consistent prices will be available. C. T. Patterson is president and W. P. Simpson secretary of the Patterson Company.

Engine and Boiler Supplies.—One of the prominent boiler and engine supplies factories of the North is that of the Sherwood Manufacturing Co., of Buffalo, N. Y., 34 Washington street. This company has a large plant devoted to the production of injectors, lubricators, cleaners and other supplies for the boiler and engine, and its product has met with permanent success wherever it has been introduced. The plant is at present full of work, with prospects for the future as very encouraging, and when this is sold of a plant its goods must have merit and be known to the trade. Literature about the company's goods will be sent on application, or other information, prices, etc., can be promptly obtained by letter.

CONSTRUCTION DEPARTMENT.

THE MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with every one interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted." In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in any town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and even then they must expect the return of some letters, because of the lack of knowledge on the part of postmasters of all new companies. Criticisms and complaints are invited, as they will the better enable us to guard against errors.

Mr. T. C. Newby, of Dresden, O., contemplates moving his woolen mill South and is looking for a location.

A manufacturer of high-grade engines, dynamos and electric machinery desires to make Southern connections with reliable firms or houses to act as their agent. Address Dynamo, care of Manufacturers' Record.

ALABAMA.

Attalla—Iron Furnace.—The Eagle Iron Co. has been incorporated, with capital stock of \$20,000, by L. S. Colyar, George H. Webb and James H. Barr, all of Chattanooga, Tenn., to manufacture iron, etc.; company has secured and will put in blast the furnace at Attalla.

Avondale—Water Works.—The legislature has been asked to grant authority to the city for issuing \$25,000 in bonds for the construction of water works. Address Hon. J. R. Ellard.

Birmingham—Cotton Mill.—The Avondale Mills Co. is now operating its 24,000 spindles and 900 looms daily, and expects by January 1 to have the full complement of 35,000 spindles and 1000 looms in place and ready for operation.

Cardiff—Coal Mine.—The Tennessee Coal, Iron & Railroad Co., of Birmingham, is opening a new coal mine at Cardiff; vein is said to be nearly four feet thick; tracks are being laid, tipples being constructed, etc.

Coalburg—Coal Mine.—J. C. Patterson is opening the old Stockton coal mine, near Coalburg; 100 men will be employed mining; new tipples are being erected.

Coalburg—Coal Mine.—The Sloss Iron & Steel Co., of Birmingham, is sinking a shaft near Coalburg to reach a lower vein of coal.

Decatur—Railroad Shops.—The Louisville & Nashville Railroad Co. will double the capacity of its shops; new buildings will be erected, new machinery installed and over 500 additional men will be needed when the improvements are completed.

Pratt City—Water Works.—The city will ask the legislature for authority to issue \$25,000 in bonds to construct the proposed

water works recently mentioned. Dr. Geo. Brown can be addressed.

ARKANSAS.

Little Rock—Drug Company.—Incorporated: The Snodgrass & Bracy Drug Co., capital stock \$3500. L. K. Snodgrass, president, can be addressed.

Pine Bluff—Electric-light Plant.—The Pine Bluff Electric Light & Street Railway Co. has been incorporated, with capital stock of \$300,000, and Jeff Hicks is president; T. L. Chadbourne, Jr., vice-president, and H. H. Hunn, secretary-treasurer.

FLORIDA.

Bronson—Sugar and Starch Factory.—A movement has been started for the formation of a company to build a sugar factory and a starch factory to utilize cane and cassava root; Perry M. Colson can give information.

Jacksonville—Towing and Wrecking Company.—Incorporated: The De Cottes Towing & Wrecking Co., with a capital of \$25,000, for towing and wrecking by contract and for salvage, carrying freight and passengers, etc. The incorporators are George A. De Cottes, Ira L. Brelson and W. H. Baker.

West Tampa—Water Works.—Contract has been awarded to Guild & Co., of Chattanooga, Tenn., for the erection of \$35,000 water-works system.

Williston—Machine Shop.—W. C. Davis has established a blacksmith and general repair shop.

Williston—Moss Factory.—J. S. Willis is erecting a moss factory.

GEORGIA.

Brunswick—Electric-light Plant.—It is stated that the Brunswick Light & Water Co. has contracted for a new lighting plant to cost \$18,000.

Cedartown—Twine Factory.—It is known that a twine factory is projected by local parties; names of those interested will be given later.

Columbus—Foundry and Machine Works.—The Golden's Foundry & Machine Co. is constructing an additional building to double the floor space of its machine department; addition is two stories high, 70x160 feet. It is also probable that the company will increase its foundry department, putting in electrical cranes and other machinery.

Dahlonega—Gold Mining, Mills, etc.—The Dahlonega Consolidated Gold Mining Co., H. D. Ingersoll, manager (mentioned last week at length), is to install new and improved machinery; will erect a 200-stamp mill or two 100-stamp mills, and a plant to treat the sulphurets. It is not decided yet whether said plant will be cyanide or chlorination, but Western plants will be examined before decision is reached. Two hundred men will be employed. The company's lands aggregate over 400,000 acres.

Gainesville—Electric-light and Power Plant.—James P. Edwards, of Augusta, Ga., recently mentioned as contemplating the erection of electric plant in Gainesville, has stated that said plant has been definitely decided upon. Plant is to include water-power development, with 150 horse-power water wheel under nine-foot head, a generator (two-phase alternating, 2400 volts), etc. Probably none of the machinery has been contracted for yet.*

Iron City—Lumber Mill.—W. J. C. Gaar will erect a lumber mill, but decision as to its location has not been reached yet.*

Statesboro—Electric-light Plant, Brick Works and Lumber Mill.—J. A. Scarboro and associates (lately mentioned) will establish both an electric-light plant and a lumber mill, with coopers, shingle and handle factory, etc.; possibly a brickyard will also be established.*

Washington—Knitting Mill.—L. M. Hull contemplates the establishment of a knitting mill.*

KENTUCKY.

Adams—Oil Wells.—Richard Vinson is boring for oil in Lawrence county.

Adams—Saw Factory.—W. J. Fell, of Huntington, W. Va., has established at Adams a mill for sawing oil-barrel staves.

Bell and Knox Counties—Oil Wells.—The proposed Richland Oil Co. has been fully organized, with capital stock of \$25,000, for the purpose of drilling for oil in Knox and Bell counties, where leases on 12,000 acres

of land are held by the company. P. W. Renick, of Middletown, O., is president; H. W. Bates, of Ashland, Ky., vice-president. Others interested are Capt. Albert Murray, of Middlesborough, Ky.; A. C. Titus, of Newport, R. I., and R. C. Ford, of Middlesborough. Address the last named.

Catlettsburg—Gas-pipe Line.—The Interstate Gas Co. is laying a 10-inch pipe line from the Warfield gas wells in Martin county to Catlettsburg, a distance of forty miles, and expects to have same completed by February 1.

Cynthiana—Cigar Manufactory.—J. R. and J. T. Wallingford will establish a cigar factory.

Fayetteville—Abattoir.—Parks Bros. have established an abattoir.

Louisville—Fishing Tackle.—The firm of B. M. Weeks & Son has been incorporated, with capital stock of \$6000, by J. V. Sutcliffe, William Carter and James O'Connor.

Louisville—Electrical Construction Company.—The Carter-Hays Electric Co. (reported last week as incorporated) succeeds L. D. Carter, dealer in electrical supplies and transacting a general electrical construction business; C. B. Hays, secretary-treasurer.

Lyons Station—Lumber Mills.—The Commercial Club of New Haven, Ky., has induced the American Lumber Co., of Pittsburgh, Pa., to build at Lyons Station a large lumber mill to employ 100 hands.

Paducah—Brewery.—A report states that John W. Conahan, of Milwaukee, Wis., contemplates erecting a brewery in Paducah.

Paducah—Wagon Factory.—H. H. Bothe, of St. Louis, Mo., has leased building in Paducah at Second and Jefferson streets and will equip same as a wagon factory.

Richmond—Electric-light Plant.—D. J. Hauss, of Cincinnati, Ohio (office in Pike Building), and associates, noted last week as obtaining franchise for electric-lighting plant, will organize the Richmond Electric Light Co. to build and operate the proposed plant. It is probable that \$15,000 will be expended. Frank Adair, of Richmond, is also interested. Address Mr. Hauss.

LOUISIANA.

Mooreland—Sugar Refinery.—The organization of the proposed sugar refining company is not yet complete. Further particulars will shortly be made public by William Polk, who is promoting the enterprise.

New Iberia—Electric-light Plant.—It is probable that the Broussard Electric Light Plant will put in a 10,000-light dynamo.

New Orleans—Ice Factory.—The Home Ice Distilling Water Manufacturing Co. has obtained permit to erect and operate machinery, boilers and other appliances for its proposed ice factory, etc.

New Orleans—Sugar-filter House.—The American Sugar Refining Co. will erect a \$250,000 building, twelve stories high, to be used as a filter-house; it is understood that contract has been awarded for this structure; H. E. Niese, of New York city, general superintendent of the company.

New Orleans—Packing-house.—The Glover Shrimp Preserving Co., Limited, has been incorporated for the purpose of manufacturing, preserving and packing shrimp, oysters, fish, etc. The incorporators are H. B. Glover and associates, and the capital stock is \$6000.

MARYLAND.

Baltimore—Fertilizer Factory.—The Carolina & Virginia Chemical Co., of Richmond, Va., has purchased the factory of the Rasin Fertilizer Co. for \$160,000 and other considerations. The plant has a capacity of 60,000 tons annually, and it is understood that this will be largely increased.

Bittinger—Timber Lands.—Pennsylvania capitalists are negotiating with G. S. Hamill, of Oakland, Md., for the purchase of 5000 acres of timber lands near Bittinger; doubtless mills will be erected.

Cumberland—Rolling Mill.—It is reported that the Cambria Iron Co., of Johnstown, Pa., has leased and will put in operation the old Baltimore & Ohio rolling mill at Cumberland.

Lonaconing—Electric-light Plant.—The Lonaconing Electric Light & Power Co. will improve its plant, putting in new engines, boiler, two dynamos, etc.

MISSISSIPPI.

Columbus—Water-works Improvements and Sewerage.—The city has voted for the

improvements of the water works and the construction of the sewerage, both previously mentioned as proposed. It is said that bonds for \$70,000 will be issued. Address "The Mayor."

Holly Springs—Water Supply.—The city will bore two or three eight-inch wells 500 feet deep; D. C. Cannon, clerk; Walter G. Kirkpatrick, of Jackson, Miss., engineer.

Jackson—Bridge.—The city will construct a two-span "Melan" bridge, 100 feet wide, of Portland cement, Louisville cement, brick, stone, steel I beams, etc.; also will build some smaller rolled-girder bridges. Bonds for \$20,000 will be issued to pay for the work projected. Walter G. Kirkpatrick, city engineer; D. P. Porter, city clerk.

Jackson—Cotton Mill.—The Young Men's League is endeavoring to locate a cotton mill.

Jackson—Woodworking Factory.—Mayers Bros. contemplate establishing a spoke and wood factory on the Rankin county convict farm.

Lexington—Telephone System.—The Lexington Improvement Co. (recently noted as incorporated) is about to establish system for telephoning.*

Scranton—Bridge.—Contract has been awarded by the county to the Geo. E. King Bridge Co., of Des Moines, Iowa, for the erection of a steel bridge.

MISSOURI.

Joplin—Lead and Zinc Mines.—A. B. Johnson, of Cornell, Ia., has leased and will develop lead and zinc lands at Grand Falls.

Joplin—Mining Company.—Incorporated: The Ryland Mining Co., capital stock \$7200, by O. H. Picher, G. F. Braun, W. H. Picher, E. O. Bartlett, W. A. Hacker and R. C. McConnell. Address O. H. Picher.

Joplin—Mining Lead, etc.—Incorporated: The McCullagh-Brownlee Mining Co., to mine lead, zinc and do general mining and smelting business; capital paid in \$15,000; incorporators, S. T. Kerr, Philadelphia, Pa.; A. A. Brownlee, New York city; A. McCullagh, Margaret McCullagh, Joplin; E. L. Scholer, Webb City. Address A. McCullagh, of Joplin.

Kansas City—Flour Mill and Grain Elevator.—The Kelley Milling Co. will be organized and incorporated to build a flour mill of 3000 barrels capacity daily and a grain elevator of 150,000 bushels capacity. About \$150,000 will be expended on the flour mill alone, and machinery for but 1500 barrels daily will be installed at the start. Site for the plant (eight acres) has been purchased at \$25,000. John Kelley will be president; Arthur B. Kelley, vice-president, and John M. Kelley, treasurer; all officers are of Leavenworth, Kan., but will locate permanently in Kansas City. Address John Kelley, Leavenworth, Kan.

Kansas City—Plano Company.—Incorporated: The Kansas City Plano Co., capital stock \$25,000, by G. F. A. Illidge, T. F. Scanlan, George Blundell and E. C. Messerry.

Mound City—Land Company.—Incorporated: The Mound City Land Co., capital stock \$3000, by Thomas Tyson, F. Gillis, John S. Smith and others.

Oronogo—Lead and Zinc Mines.—S. W. Simmons and W. E. Simpson, of St. Louis, Mo., have leased and will develop lead and zinc lands near Oronogo; a large pumping plant will be erected at once.

Oronogo—Lead and Zinc Mines.—William Gunning is sinking a shaft for lead and zinc ores.

Ozark—Cannery.—The Ozark Canning Co., capital stock \$4000, has been incorporated by H. C. Collins, J. A. Kerr, John Robertson and others.

St. Joseph—Clothing Company.—Incorporated: The Jones, Townsend & Shireman Clothing Co., capital stock \$40,500, by W. P. Jones, R. E. Townsend and John Shireman.

St. Louis—Water Heaters.—Incorporated: The Advance Water Heater Co., capital stock \$5000, by Isaac E. Reis, Bettie Robinson, Sol Hammer and Walter P. Kennedy.

St. Louis—Carriage Woodwork.—The St. Louis Carriage Woodwork Co., capital stock \$10,000, has been incorporated by Walker Southern, W. H. Ramm and Louis J. Stage.

St. Joseph—Shoe Company.—Incorporated: The Gelwitz & Holland Shoe Co., authorized capital \$8000, by Charles F. Gelwitz, Thos. P. Holland and James P. O'Brien.

St. Louis—Liquor Company.—Incorporated: The Loehrs Wine, Liquor & Supply

Co., capital stock paid in \$8000, by F. Loehr, Lillie W. Loehr and H. G. Hill, trustee for Harry Loehr.

St. Louis—Hat Company.—Incorporated: The White-Branch-McConklin Hat Co., capital stock \$125,000, by Richard J. White, Lawrence O. Branch and William N. McConklin.

St. Louis—Advertising.—Incorporated: The Kastor Advertising Co., capital stock \$10,000, by H. W. Louis and E. H. Kastor.

St. Louis—Plumbing.—Incorporated: The St. Louis Plumbing Guarantee Co., capital stock \$2000, by Charles P. O'Reilly, John H. Stedger and John F. Farrington.

St. Louis—Catering Company.—Incorporated: The Union Catering Co., capital stock \$5000, by Lane Massey, George B. Massey and William Taylor.

St. Louis—Realty.—Incorporated: The Jenne Realty Co., capital stock \$20,000, by Margaretha, Joseph, Charles and Barbara Jenne.

Webb City—Lead and Zinc Mines.—A company is being formed to operate lead and zinc mines near Webb City; C. B. Davis, A. McAdow, W. W. Mayes and others are interested.

NORTH CAROLINA.

Almond—Kaolin and Talc Deposits.—New York parties and Frank R. Hewitt, of Hewitt, N. C., will develop a talc property near Tomatia, N. C., and a kaolin property near Almond.

Asheboro—Chair Factory.—A company will be organized for the establishment of a chair factory, and necessary capital has been subscribed; S. W. Laughlin will be secretary-treasurer-manager.

Asheboro—Mercantile.—Incorporated: The McCreary-Lassiter Co., capital stock \$5000, with privilege of increasing to \$15,000; incorporators, E. C. Lassiter, H. Redding and J. M. Lassiter.

Bessemer City—Cotton Mills.—The Southern Cotton Mills contemplate putting in more looms.

Blue Wing—Copper Mines, etc.—The erection of a water-jacket smelter at copper mines is contemplated; W. Raker can give information.

Chapel Hill—Cotton Mill.—Thos. F. Lloyd has nearly completed the building for his cotton mill; 300 spindles will be put in at the start, with 700 to follow shortly.

Charlotte—Woodworking Factory.—J. J. Mallonee, of 226 Tryon street, is organizing a company to build a plow-singletree factory in the western part of the State.*

Charlotte—Publishing.—Incorporated: The North Carolina Medical Journal Co., by R. D. Jewett, W. H. Wakefield and Mary C. Wakefield. The capital stock is \$5000.

Charlotte—Card-clothing Factory, etc.—The American Card Clothing Co., of Worcester, Mass., will, in connection with its branch cotton-mill-supplies house, repair and re-equip card clothing and other mill supplies; later on the company expects to manufacture more extensively. A full equipment of machinery for the repair work will be put in at once.

Gastonia—Cotton Mill.—A company will be organized at once for the erection of a fine yarn mill, to have probably 5000 spindles; George A. Gray, of Gastonia, will be president, and R. P. Rankin, of Lowell, N. C., secretary-treasurer; capital stock \$80,000.

Greensboro—Furniture Company.—The Union Furniture Co. has been incorporated, with a capital stock of \$20,000.

Kinston—Ice Factory.—W. J. Wyatt will establish an ice factory.

Monroe—Telephone System.—W. S. Lee, J. M. Beik and R. A. Morrow are organizing a company to establish a telephone system.

Salisbury—Water-power Development.—The Yaddin Power Co. (Incorporated by the legislature of 1897) held its first meeting on December 9. Those present were Messrs. W. C. Bullitt, Howard Lippincott, Powell Evans and Herman Hoopes, of Philadelphia, and Hon. Theo. F. Klutts and Walter Murphy, of Salisbury. Subscriptions for stock were authorized and \$25,000 was subscribed at once. Another meeting will be held in Philadelphia this week, at which steps preparatory to the erection of a plant will be taken. It is proposed by the company to develop the water-power of the Yaddin river and transmit it for general industrial purposes. Address Theo. F. Klutts.

Tomatia—Kaolin and Talc Deposits.—New York parties and Frank R. Hewitt, of Hewitt, N. C., will develop a talc property near Tomatia, N. C., and a kaolin property near Almond.

Tryon—Knitting Mill.—L. N. Wilcox & Sons have installed in their hosiery mill an extensive dyeing plant

Winston—Furniture Factory.—Incorporated: The Winston Furniture Co., to manufacture furniture, build houses, conduct machine shops, etc.; capital stock \$16,000, to be increased to \$300,000; incorporators, G. L. Miller, G. E. Miller, W. Prentiss, Walter A. Shore, Lindsay Patterson, E. L. Lockett and H. D. Poindexter.

SOUTH CAROLINA.

Abbeville—Cotton Mill.—The improvements and new machinery for the Abbeville Cotton Mills, referred to last week, will cost \$100,000.

Alken—Sewer System.—The city has completed arrangements insuring the establishment of sewer system with filters, and will let contracts next month; plans and specifications are now on file; M. B. Woodward, mayor.*

Catawba Junction—Corn Mill.—A. K. Glasscock will establish a corn mill.*

Cheraw—Trading.—Incorporated: The New Providence Trading Co., by E. A. Palmer, Richard F. Duncan, W. V. Smith and W. E. Price, of Providence, R. I., and W. P. Pollock, of Cheraw. The capital stock is to be \$250,000. The purpose of the corporation is to conduct a general merchandise and manufacturing business.

Chester—Cotton Mill.—The Eureka Cotton Mills is adding 5000 spindles (as reported recently), together with cards, roving and drawing for same; company is also putting in aerophor system, sprinkler system, twenty-five new tenement-houses and four standard cotton warehouses to hold 6000 bales.

Chesterfield—Ochre and Kaolin Beds.—Extensive deposits of ochre and kaolin in the vicinity of Chesterfield may possibly be developed. G. J. Redfearn can give information.

Columbia—Mattress Factory.—The Palmetto Mattress Co., F. M. Mixson, manager, has established a factory.

Columbia—Lumber Mill.—R. C. Shand will establish a small lumber mill as an experiment. Address 1026 Sumter street.*

Fountain Inn—Manufacturing Company.—A charter has been granted to the Fountain Inn Manufacturing Co., capital stock \$50,000, and J. W. Shell is president; A. S. Peden, vice-president, and P. C. Poag, secretary and treasurer.

Gaffney—Water Works.—The city will open bids next month for the sale of the \$18,000 of bonds that were authorized for the construction of the water works mentioned last week. The supply will be obtained from wells. Frederick Minshall, of 150 Nassau street, New York city, is engineer for the city.

Gaffney—Flour Mill.—T. G. McCraw will install a flour mill of 300 bushels capacity daily.

Greenwood—Ice Factory.—Brooks, Trammell & Co. will erect and operate an ice factory of five tons capacity, with cold-storage rooms (two). Contracts will be awarded soon for machinery, the building and foundations having been arranged for. Bids and estimates will be wanted and interrogation blanks are wanted by Y. B. Trammell, of the firm mentioned.*

McColl—Ice Factory.—T. B. Gibson contemplates the erection of an ice factory of five tons capacity.*

Monck's Corner—Incorporated: The Colored Joint Stock Co., with capital of \$2000.

Rock Hill—Vehicle Factory.—The Rock Hill Buggy Co. has purchased the business and plant of the Carolina Buggy Co., of Yorkville. The machinery will be removed to Rock Hill and put in the Rock Hill Company's factory.

Spartanburg—Electric Plant.—A company is forming for the purpose of building a plant to furnish electric lights and power. Water-power will be developed and current be transmitted ten miles. Julius L. Carson can give information.*

TENNESSEE.

Chattanooga—Cot Factory.—The Nixon Manufacturing Co. will erect a new factory building for cotmaking, etc.

Chattanooga—Furniture Factory.—Incorporated: The Acme Kitchen Furniture Co., by Z. C. and John A. Patten, J. T. Lupton, Prosper Lazard and W. B. Swaney. The capital is \$10,000. It is the intention of the company to erect a plant to cost about \$10,000 for the manufacture of kitchen furniture.

Fayetteville—Tannery.—Harvey Medairs will build a tannery.

Knoxville—Packing Plant.—A \$100,000 stock company will be organized to build a large packing plant. Harry Young will probably be president and general manager.

Legate—Woolen Mill.—L. S. Tippet will remove his woolen mill from Legate to Clarksville and make considerable enlargements and improvements.

Nashville—Coal Mining.—Incorporated: The Ridgway-Sprinkle Coal & Lumber Co., with \$64,000 capital, by Jacob E. Ridgway, John I. Bishop, Caleb S. Ridgway, W. Judson Sprinkle and Charles S. Davies, of Philadelphia.

Nashville—Printing Plant.—Incorporated: The Reform Publishing Co., with a capital stock of \$20,000, by George W. Armistead, Robert A. Armistead, W. S. Kirby, J. L. Coles and J. H. Zarecor, to establish a job printing office. Address G. W. Armistead.

Rockwood—Bridges.—The Tennessee Central Railroad will be built by Messrs. Nagle, Holcomb & Co., of 355 Dearborn street, Chicago, Ill. It is stated that several bridges will be required, which will cost about \$200,000. J. T. Bigelow, at Rockwood, Tenn., is chief engineer.

TEXAS.

Ablene—Water Works.—The Lytle Water Co. will improve its water works, increasing the height of its dam, raising the spillway and enlarging capacity of lake nearly 200,000,000 gallons. N. Werenskiold, of Dallas, will prepare the plans necessary.

Bonham—Flour Mill.—Ed. D. Steger will erect his proposed flour mill in the next six months; capacity to be 200 barrels daily, with elevators for grain, etc.

Buckholtz—Farming.—Incorporated: The Bohemian Texas Farm Association, to promote agriculture, horticulture, etc., by M. Ennis, J. Tomek, M. Matuchs, J. Rubac, J. Moudrick and F. Moudrick, Buckholtz.

Dallas—Machinery Company.—Incorporated: The H. W. Graber Machinery Co., capital stock \$10,000, by H. W. Graber, F. M. Donnelly and H. A. Graber.

Denison—Milling.—Incorporated: The Denison Milling Co., capital stock \$30,000, by Edward Hely, P. H. Tobin and J. R. Cullmane. Address Edward Hely.

Palestine—Marble Yards.—William Nance will establish marble yards; will erect corrugated iron building.

Round Rock—Mercantile.—Incorporated: The Anderson-Peterson Mercantile Co., capital stock \$10,000, by C. J. Anderson, G. A. Peterson and J. A. Nelson.

Smithville—Bridge.—The Indiana Bridge Co., of Indianapolis, Ind., has received contract to construct a \$23,500 bridge across the Colorado river at Smithville.

Waco—Gaspipe Lines.—The Waco Gas Co. has asked the city council for franchise to lay pipes through the city; natural gas will be piped.

Waxahatchie—Cotton Gin.—The Wilder-Morton Gin Co., capital stock \$10,000, has been incorporated by H. Wilder, W. D. Morton and H. W. Wilder. Address H. W. Wilder.

Wills Point—Mercantile.—Incorporated: The Wills Point Mercantile Co., capital stock \$20,000, by W. Pilley, J. F. Dutton and W. R. Lunsford.

VIRGINIA.

Buena Vista—Educational.—Incorporated: The Oak Lawn Co., to maintain high school, hotel and sanitarium; authorized capital \$25,000; incorporators, C. C. Wrenn, W. T. Anderson, W. A. Wrenn, McD. L. Wrenn, Norfolk; R. W. Winborna, Buena Vista.

Chase City—Tobacco Factory.—The Tobacco Board of Trade is negotiating for the establishment of a tobacco factory.

Chase City—Kaolin and Feldspar Developments.—It is stated that New Jersey parties will mine kaolin, feldspar and flint rock near Chase City and erect a manufactory to utilize the product. Probably "The Mayor" can give names of interested parties.

Danville—Tobacco Factory.—Green Penn, Rucker Penn and Barnes Penn will incorporate G. Penn, Sons & Co. The company's succeed G. Penn Sons Co. The company's paid-in capital is \$100,000, and it will enlarge its factory to a capacity of 2,500,000 pounds of plug tobacco annually.

Norfolk—Cafe Company.—Incorporated: The Commercial Cafe Co., capital \$10,000, with John T. Brady, president; Joseph S. Odendhal, secretary, and Edward Spaulding, treasurer.

Richmond—Cotton Mills.—Messrs. Haynes & Bishop, a Northern firm, has leased the Manhattan Mills from N. W. Bowe, receiver, for one year, with privilege of purchase at a fixed price. The same firm is also said to have leased the Old Dominion Mills. For information address Haynes & Bishop, care of N. W. Bowe, Richmond.

Richmond—Groceries.—The Thomas Potts Co. has been incorporated, capital stock

\$20,000, for mercantile purposes; W. S. Donnan, president; Frank L. Potts, vice-president, and Allan Potts, secretary-treasurer.

Richmond—Baking-powder Factory.—Incorporated: The Empire Manufacturing Co., to manufacture and sell baking powder; authorized capital \$25,000; incorporators, T. B. Murphy, W. A. Chambers, T. Washington, W. B. Deatheridge, W. F. Reddy, M. B. Garrett, Richmond; J. J. Barke, Mathews.

Richmond—Paper Mills.—The James River Falls Paper and Pulp Mills has been chartered with a minimum capital of \$500,000; P. H. Mayo is president; Henry Lee Valentine, vice-president; Fairfax C. Christian, secretary, and Robert R. Harrison, treasurer. This company recently purchased the Haxall Mills; will commence work on equipment January 1, and will employ 500 hands. The Virginia Electrical & Development Co. will furnish the power.

Winchester—Cannery.—It is proposed to establish a cannery. Names of interested parties will be given later.

WEST VIRGINIA.

Charleston—Lighting and Heating Company.—The Kitson Lighting & Heating Co., of Japan and China, has been incorporated, with capital stock of \$1,000,000, by A. D. MacCorkle, J. W. Malcom, J. E. Chilton, J. E. Skaggs and W. E. Chilton. Attorneys of company may be addressed, Messrs. Chilton, MacCorkle & Chilton, Charleston.

Fairmont—Brewery.—Incorporated: The Fairmont Brewing Co., to conduct a general brewing business, buying and selling ice and operating water works; authorized capital \$200,000; incorporators, H. P. Gilmore, Uniontown; John J. O'Reilly, Pittsburg; W. A. Johnston, Latrobe; M. A. Jolliffe, B. G. Williams, Fairmont. Address last named.

Parsons—Lime Works and Coal Mining.—R. P. Pearson (mentioned last week) and associates will engage in lime manufacturing, and complete kiln equipment will be bought at once; enough coal will be mined for burning the lime.*

BURNED.

Mansfield, Texas.—D. P. Shaw's cotton gin.

Norfolk, Va.—G. W. Duval & Co.'s foundry; W. A. Anderson's machine shops and foundry.

Ogemaw, Ark.—Hickok Lumber Co.'s mills; loss \$25,000.

Riverside, S. C.—Millen & Lathan's cotton gin; loss \$800.

Rome, Ga.—S. D. Camp's cotton gin; loss \$2000.

Warrensburg, Mo.—T. A. Sollars' broom-rack factory.

BUILDING NOTES.

Arkadelphia, Ark.—Jail.—Chas. L. Thompson will prepare plans and specifications for a \$30,000 jail for Clark county. Address Hon. J. H. Crawford, commissioner.

Atlanta, Ga.—Velodrome.—Jack Prince will build, at a cost of \$20,000, a velodrome (indoor bicycle track); also will probably construct horse-racing track in same building.

Birmingham, Ala.—Office Building.—It is reported that an office building will be erected, and W. L. Wallace, of Sharon, Pa., is said to be interested.

Bluefield, W. Va.—Business Block.—William Hicks will erect a business block.

Chester, S. C.—Warehouses.—The Eureka Cotton Mills is erecting four standard cotton warehouses of 6000 bales capacity.

Chester, S. C.—Cottages.—The Eureka Cotton Mills is erecting twenty-five new tenement-houses.

Frostburg, Md.—Hotel.—Incorporated: The Gladstone Hotel Co. with a capital stock of \$40,000, by W. E. G. Hitchins, Frank Watts, G. H. Wittig, A. E. Hitchins and J. Benson Oder.

Greenville, S. C.—Theater.—J. H. Morgan and Dr. C. C. Jones are interested in a project to build an opera-house.

Gulfport, Miss.—Cottages.—S. S. Bullis will erect thirty-five cottages.

Hot Springs, Va.—Hotel.—Mr. Alphin will erect a 40-room addition to his hotel.

Joplin, Mo.—Business Buildings.—A. G. Spring, of Boston, will erect in Joplin a modern brick block.

Kansas City, Mo.—Office Building.—L. G. McNair and Emile S. Guigon, of St. Louis, Mo., will erect in Kansas City a 10-story, 24x784-foot office building at a cost of about \$500,000.

Lafayette, Ala.—Courthouse.—The county expects to build its proposed courthouse next March. Amount appropriated for the

work is \$20,000 to \$30,000. Golucke & Stewart, of Atlanta, Ga., prepared the plans, etc. Address Allen J. Driver, Jr., judge of court.

Morgantown, W. Va.—Church.—The Methodist Church will build a church building to cost \$25,000. Address "Pastor of Methodist Church."

Newport News, Va.—Office Building.—Howard W. Sibby, of Washington, D. C., will erect a six-story office building in Newport News at a cost of from \$25,000 to \$30,000.

Opelika, Ala.—Courthouse.—The Chambers county commissioners will issue bonds for \$25,000 to build a courthouse.

Spartanburg, S. C.—Warehouse.—A company is organized to build a warehouse; names of parties interested to be given later.

St. Louis, Mo.—Dwelling.—Samuel S. Pomeroy will erect a \$9000 two-story brick dwelling.

St. Louis, Mo.—Warehouse, etc.—St. Louis Brewing Association will erect \$12,000 stockhouse; Christian Pepper will erect six-story warehouse, to cost \$50,000.

St. Louis, Mo.—Building.—Incorporated: The Olivia Building Co., capital \$250,000, by Joseph Ghio, R. J. Harbaugh, C. Leslie Watson, J. H. Orr and D. Vanderlippe.

Thomas, Ala.—Cottages.—The Pioneer Mining & Manufacturing Co. has contracted for the erection of 300 cottages at its new mines, Sayreton, near Thomas.

Washington, D. C.—Dwellings, etc.—J. G. Myers has prepared plans for three houses, each to be four stories high, have hot-water heat, hardwood finish, etc. J. M. Henderson will erect three double cottages. John W. Greeg will build three houses.

Wilson, N. C.—Warehouse.—D. J. Rose & Bro., of Raleigh, N. C., are preparing plans and specifications for a tobacco warehouse to be built by S. Lucas; structure to be 110x200 feet, and to cost \$6000. Address S. Lucas.

Wilson, N. C.—Temple.—Messrs. D. J. Rose & Bro., mentioned last week as architects for proposed Odd Fellows' temple, are of Raleigh, N. C.

Winnboro, S. C.—Residence.—T. A. Shipp will erect a residence.

RAILROAD CONSTRUCTION.

Railways.

Alexander, La.—Messrs. Wheeler & Boody, of 222 South Third street, Philadelphia, advise the Manufacturers' Record that a large portion of their contract for constructing the Gulf, Louisiana & Great Northern Railway will be sublet. It has been decided to use 60-pound rails, and about 26,000 tons will be required. This line is to be 270 miles long. Joseph J. Waltz, at Alexandria, is president of the company.

Atlanta, Ga.—The Atlanta & West Point Railroad Co. has purchased right of way for a portion of its belt line in the suburbs. George C. Smith is president of the company.

Baltimore, Md.—It is reported that the scheme to build the Baltimore & Drum Point Railroad has been revived, and that New York parties have become interested. The franchise is now owned by Edward Lauterbach. Frank R. Biedler, of Baltimore, is one of the promoters of the enterprise. A portion of the line has been graded. Its entire length is about eighty miles.

Baltimore, Md.—The Ellicott City branch of the City & Suburban Railroad Co.'s electric lines has been completed and is ready for operation. It extends from Baltimore to Ellicott City.

Beaumont, Texas.—Tracklaying has begun upon the extension of the Gulf, Beaumont & Northern Railroad from Kirbyville north. John H. Kirby, at Houston, Texas, is president of the company.

Berkeley, W. Va.—It is reported that the branch of the West Virginia Central & Pittsburgh between Berkeley and Huttonsville is nearly completed, and that train service will be commenced in January.

Centerville, Md.—Right of way has been secured for the branch of the Queen Anne's Railroad from Queenstown to Centerville. The road will be about eight miles in length. W. H. Bosley, at Baltimore, is president of the railroad company.

Dallas, Texas.—The stockholders of the Dallas Terminal Railway Co. will meet December 27 to vote on issuing \$1,000,000 in 5 per cent. bonds for the proposed extension to Fort Worth, Texas, a distance of thirty-two miles.

Dixon, Ky.—The business men of Dixon

are promoting a railroad line between that town and the towns of Clay and Lisman, in Webster county. The line would be a feeder of the Illinois Central if built.

El Paso, Texas.—It is stated that engineers have recently made surveys for about 250 miles of railroad projected from Denver, Col., to Eagle Pass and Galveston, Texas. It is entitled the Colorado, Texas & Mexico Railroad, and may be built as far as El Paso. Morris L. Lock, of Abilene, Texas, is in charge of the surveys.

Greenwood, Ark.—It is reported that the Missouri Pacific intends constructing a line east of Greenwood, and surveys are now being made. W. B. Doddridge, at St. Louis, is general manager of the company.

Guthrie, Okla.—The Guthrie, Langston & Downes Railway Co. has been formed, with \$2,000,000 capital stock, to build a line from Guthrie southwest to a point in Texas.

Hartford, Ky.—The proposed railroad from Hartford to a connection with the Illinois Central system will be about five miles in length if built. The Southern Construction Co., of St. Louis, is still negotiating with the view of building the line.

Jacksboro, Texas.—It is reported that the Texas Western & Circle Belt Railroad Co. has made a proposition to extend its line to Jacksboro, if a site for a depot and \$15,000 in cash are donated. A. B. Donaldson, of Pueblo, Col., is the chief promoter.

Jefferson, Texas.—It is reported that the plan of extending the Vicksburg, Shreveport & Pacific Railroad from Waskom, its present terminus, to Jefferson, has been revived. The extension would be about twenty-five miles long and give a connection with the Missouri, Kansas & Texas system. This line is a branch of the Queen & Crescent. S. B. Nicholson, at Cincinnati, is chief engineer.

Nashville, Tenn.—It is announced that the Cumberland Construction Co., of St. Louis, has assumed the general contract for work on the Tennessee Central Railroad. This company has sublet its contracts to Nagle, Holcomb & Co., of 355 Dearborn street, Chicago, who, it is stated, will negotiate with subcontractors for grading, etc. In all 220 miles of road will be built, of which about sixty have already been graded. The main line will extend from Monterey to Harri-man, Tenn., with a section to Crossville and Clarksville. A branch about six miles in length from Harri-man to Clinch River is also included, with several bridges. The latter it is calculated will cost in the aggregate about \$200,000. Jere Baxter is president of the railroad company proper at Nashville, and J. T. Bigelow chief engineer at Rockwood, Tenn.

New Martinsville, Va.—It is stated that a charter has been secured for the proposed railroad through Tyler, Gilmer and adjacent counties to a point on the Big Kanawha river. The road may be built from New Martinsville to Sistersville, and will be about seventy-five miles long.

Orange, Texas.—The Gulf, Texas & Northern Railway Co. has asked permission to issue bonds to finance the construction of its proposed line between Orange and Marshall. The road is to be 200 miles in length. C. S. Brackenridge, at Orange, is chief engineer.

Palatka, Fla.—It is reported that the parties interested in the proposed railroad from Palatka to Charlotte Harbor, on the Gulf of Mexico, include J. W. Dawe, of Boston, and J. A. Allen, of Evansville, Ind. It is stated that preliminary surveys have been made of several lines.

Richmond, Va.—It is reported that work is about to begin upon the Richmond, Petersburg & Carolina Railway at the southern end, where the proposed road will join the Seaboard Air Line. Already about twenty-two miles of road have been completed. De Witt Smith, of 50 Broadway, N. Y., is president of the company.

Richmond, Va.—The Virginia, Petersburg & Carolina Railroad Co. has begun the survey of another route for its terminal lines in Richmond. It is stated that its depot may be constructed on Main street, near Eighteenth. DeWitt Smith, of No. 50 Broadway, New York, is president of the company.

Savannah, Ga.—It is stated that the mileage of track to be built by the Georgia & Alabama Terminal Co. at Savannah will be about four miles, exclusive of sidings. Cecil Gabbett, at Savannah, is general manager of the company.

Stamps, Ark.—The Louisiana & Arkansas Railroad Co. has increased its capital to \$300,000 and proposes to construct an extension through Webster parish, Louisiana. William Buchanan, at Stamps, may be addressed.

Texarkana, Ark.—It is stated that the Arkansas & Choctaw Railroad Co. has determined on an extension into the Indian Territory, and to make a connection with the Missouri, Kansas & Texas. The line is now in operation between Texarkana and Carson, a distance of forty-six miles. W. T. Valliant, at Rocky Comfort, Ark., is chief engineer.

Valdosta, Ga.—It is reported that the Atlantic, Valdosta & Western Railroad Co. is now considering an extension of its line from Valdosta to Albany. The road is nearly completed to Jacksonville, Fla., and if the extension is decided upon it will form a direct line from Albany to the Atlantic coast. E. C. Long, at Haylow, Ga., is vice-president.

Washington, D. C.—It is stated that the City & Suburban Railway Co. has determined to extend its electric system as far as Muirkirk, in Prince George's county. The extension will be built from Hyattsville. W. Kesley Schoepf, at Washington, may be addressed.

Winfield, Ala.—About 600 men are now at work on the extension of the Illinois Central between Winfield and New River. The road is about four miles in length, and is expected to be completed by February 1. It will be utilized in hauling the product of coal mines in the vicinity of Winfield.

Street Railways.

Baltimore, Md.—The Baltimore & Northern Electric Railway Co. has asked for franchises to make several extensions to its lines in the northern and eastern suburbs. It is stated that the extensions will aggregate about fifty-three miles. The trolley system will be used. George R. Webb, Equitable Building, Baltimore, is general manager of the company.

Birmingham, Ala.—It is stated that the Birmingham Railway & Electric Co. has determined to place 60-pound rails on its branch to Ensley, substituting these for the ones now in place. J. B. McClary is general manager.

Chattanooga, Tenn.—It is reported that the Chattanooga Electric Railroad Co. has determined to replace its present rails with ones weighing fifty pounds to the yard, and to add considerable rolling stock to its equipment. J. H. Warner is president of the company.

Pine Bluff, Ark.—A company to build the proposed street railway has been organized, and it is stated that the necessary capital stock has been subscribed. Its entire capital is to be \$300,000. Jefferson Hicks is president; Thomas J. Chadbourn, vice-president, and H. H. Hunn, secretary and treasurer.

Rome, Ga.—It is reported that the Rome Street Railroad Co. has decided to extend its car line to Lindale, a manufacturing town in the suburbs. Seymour Cunningham is president of the company.

Washington, D. C.—Bills are pending in Congress allowing the City & Suburban Railway Co. to extend its tracks; also the Metropolitan Railroad Co. The Maryland Suburban Railway Co. desires a franchise to extend its lines in the suburbs.

Winchester, Ky.—The Winchester Street Railway & Transfer Co. has been formed by J. L. Brown, W. P. Ogden, George M. Adams and others.

Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Bag Machinery.—A. McSweeney, care of National Publishing Co., 628 Louisiana avenue, Washington, D. C., wants to buy a machine for making different sizes of bags.

Belting, Shafting, etc.—See "Woodworking Machinery."

Boiler.—A. K. Glasscock, Catawba Junction, S. C., wants a 30-horse-power boiler with fixtures.

Boiler and Engine.—Greer Machinery Co., Knoxville, Tenn., wants dealers' and con-

sumers' price on second-hand portable engine and boiler mounted on sills.

Boiler and Engine.—J. J. Mallonee, 226 Tryon street, Charlotte, N. C., wants to buy 50-horse-power boiler and 40-horse-power engine.

Boiler and Engine.—R. C. Shand, 1026 Sumter street, Columbia, S. C., wants to buy 15-horse-power engine and 30-horse-power boiler.

Brick Works.—J. A. Scarboro, Statesboro, Ga., will possibly buy brick works.

Candy Factory.—Sherman Candy Co., 138 North Travis street, Sherman, Texas, will need at different times supplies, etc., for candy factory.

Cannery Supplies.—Warmack Bros., Cleveland, Tenn., want prices on small tins and labels for same.

Cash Trolley System.—O. G. Finch, Ocala, Fla., wants to buy a trolley cash system of five stations for store; second-hand will do.

Conveying Machinery.—K. B. Harvey, Punta Gorda, Fla., wants to buy cable or wire-rope conveying equipment for handling lighters back and forth from deep water to warehouse on shore.

Corn Mill.—A. K. Glasscock, Catawba Junction, S. C., wants a corn mill of about fifteen bushels capacity hourly, and a 30-horse-power boiler with fixtures.

Cotton-mill Equipments.—John H. Prince, V. O. 12 Line 9, St. Petersburg, Russia, wants addresses of cotton-mill equipment furnishers; wants prices on bobbins, tubes, pickers, shuttles, etc.

Crushers.—See "Mining Machinery."

Dry-kiln.—J. J. Mallonee, 226 Tryon street, Charlotte, N. C., wants to buy small dry-kiln.

Electric-light Plant.—J. A. Scarboro, Statesboro, Ga., will buy electric-light plant.

Electric Plant.—James P. Edwards, Augusta, Ga., will probably buy equipment for electrical water-power plant.

Electric Plant.—Julius L. Carson, Spartanburg, S. C., wants estimates on cost of electric-light and power plant; equipment to consist of 500-horse-power water-wheel for 26-foot head, 125 arc lamps of 2000 candle-power, dynamo to furnish same, transmitting the current ten miles to city; dynamo for 2000 incandescent lights, current to be transmitted ten miles; wire, insulators, transformers, etc.

Engine.—Greer Machinery Co., Knoxville, Tenn., is in the market for six to eight-horse-power portable engine, mounted on wheels; state dealers' price.

Fertilizer Machinery.—Black River Fertilizer Co., Watertown, N. Y., wants a steam-rendering tank about four feet diameter by eight feet long, with opening on bottom; state steam pressure, guarantee and other particulars.

Gun Materials.—H. C. Larsh, Bartow, Fla., wants to correspond with makers of guns to obtain prices on gun barrels, locks, fixtures, etc.

Ice Factory.—T. B. Gibson, McColl, S. C., wants to buy a five-ton ice factory.

Ice Factory.—Brooks, Trammell & Co., Greenwood, S. C., solicit plans, specifications and estimates on complete ice factory of capacity of five tons per twenty-four hours, with two rooms for cold-storage. Machinery houses will be wanted to furnish all equipment except foundations for compressors, engines, boilers and house to receive machinery. For further information address or send interrogation blanks to Y. B. Trammell, of the firm noted.

Knitting Machinery.—L. M. Hull, Washington, Ga., wants addresses of makers of knitting machinery.

Lime-kilns.—R. P. Pearson, Parsons, W. Va., wants information and estimates on ironclad lime-kilns.

Logging Contract.—Apalachian Land & Lumber Co., Apalachia, N. C., will open bids January 2 for cutting and logging 35,000 to 50,000 feet of logs daily to tramway skids; distance not to exceed one and one-half miles. Bids may be made for cutting and logging in one or separate bids on either. Bond will be required from successful bidder.

Lumber Mills.—W. J. C. Gaar, Iron City, Ga., will buy medium-weight lumber-mill machinery, including saw mill, double edger, rift machine, twin-engine feed, live rolls, etc.

Lumber Mills, etc.—J. A. Scarboro, Statesboro, Ga., will buy equipment for lumber mill, also for handle, crate, shingle and cooperage manufacturing.

Machine Tools.—Virginia Bridge & Iron Co., Roanoke, Va., will be in the market for a bolt and rivet heading and upsetting machine; second-hand will answer.

Mining Machinery.—See "Washing Plants."

Mining Machinery.—J. D. Case, manager, Greensboro, N. C., wants to buy machinery for mining manganese, capacity to be 200 tons daily; also wants crusher (Cornish). Detailed statement of cost erected on one foundation, full plans and specifications, etc., are solicited.

Overall-making Machinery.—Caldwell, care of Manufacturers' Record, wants information concerning the manufacture of overalls and estimates on machinery for same.

Painting Machinery.—S. G. Webb Chemical Co., Richmond, Va., wants information on automatic painting machinery.

Pump.—See "Woodworking Machinery."

Pumping Engine.—Sealed proposals will be opened January 10 next for removing old pumping engine and furnishing new one for the dredge "Charleston." Address U. S. Engineer Office, Custom-house, Charleston, S. C.

Pumps.—See "Rams."

Railway Equipment.—Woodward, Wight & Co., 406 Canal street, New Orleans, La., are in the market for an 18 to 22-ton second-hand Shay or Henschel geared locomotive.

Railway Equipment.—Wheeler & Boody, Westmoreland Building, 222 South Third street, Philadelphia, Pa., will use 60-pound steel rails (about 26,000 tons in all) for a Southern contract.

Railway Equipment, etc.—R. P. Pearson, Parsons, W. Va., will want twenty tons of second-hand steel rails, sixteen pounds to yard, with necessary bolts and plates; also about 3000 feet of five-inch steel wire rope.

Railway Equipment.—John F. Riley, Charleston, S. C., is in the market for a good second-hand standard-gauge light locomotive, about 10-inch cylinders, twelve to sixteen tons weight, for logging purposes, to stand force and heavy pulling; also wants two miles of second-hand 30-pound steel rails.

Rams.—Charles Pearson, chief engineer Raleigh & Cape Fear Railway, Raleigh, N. C., wants prices on water rams.

Rendering Tank.—See "Fertilizer Machinery."

Sewer System.—Proposals will be opened January 18 for the construction of a system of small pipe sewers with a filtration plant; plans and specifications may be seen at mayor's office, Alken, S. C.; M. B. Woodward, mayor. (See adv. in Manufacturers' Record.)

Shirt-making Machinery.—Caldwell, care of Manufacturers' Record, wants information concerning manufacture of shirts and estimates on machinery for same.

Steel Rope.—See "Railway Equipment, etc."

Sugar-factory Machinery.—Illinois Sugar Refining Co. will need machinery within the course of sixty to ninety days for a \$300,000 beet-sugar factory of 350 tons capacity daily. Address C. A. Jamison, president, 902 S. Washington street, Peoria, Ill.

Tanks.—Charles Pearson, chief engineer Raleigh & Cape Fear Railway, Raleigh, N. C., wants prices on cypress tanks.

Telephone Equipment.—Lexington Improvement Co., Lexington, Miss., wants switchboard, seventy-five instruments, etc.

Washing Plants.—Greer Machinery Co., Knoxville, Tenn., wants wholesale dealers' prices on second-hand ore washers or other machinery for getting out manganese.

Water Wheels.—See "Electric Plant."

Water-wheel.—Julius L. Carson, Spartanburg, S. C., wants estimates on 500-horse-power water-wheel for 26-foot head. (See "Electric Plant.")

Water Works.—Proposals will be opened January 5 next for the construction of water system for government boarding school at Darlington, I. T., in accordance with plans and specifications, which may be examined at Darlington; at office of Journal, Kansas City, Mo.; of Eagle, Wichita, Kans.; of Evening Star, El Reno, I. T., and at Indian office of the government, Washington, D. C. For further detailed information apply to Major A. E. Woodson, U. S. Indian Agent, Cheyenne and Arapahoe Agency, O. T.

Woodworking Machinery.—G. M. Davis & Son, Palatka, Fla., are in the market for a dowl machine, new or second-hand.

Woodworking Machinery.—Salem Iron Works, Salem, N. C., wants to correspond with makers of shuttle-block machinery; also with shuttle-block buyers.

Woodworking Machinery.—J. A. Scarboro, Statesboro, Ga., will buy machinery for manufacturing shingles, cooperage, handles, crates, etc.

Woodworking Machinery.—John Y. Alexander, Hayneville, Ala., wants to buy a light second-hand planer and matcher.

Woodworking Machinery.—R. C. Shand, 1026 Sumter street, Columbia, S. C., wants to buy 6x14 planer and matcher, 15-horse-power engine, 30-horse-power boiler.

Woodworking Machinery.—J. J. Mallonee,

226 Tryon street, Charlotte, N. C., wants to buy machinery for making plow single-trees; also boiler of fifty horse-power and engine of forty horse-power; also small dry-kiln, pump, shafting, belting, etc.

GENERAL INDUSTRIAL NEWS.

The proposed addition to the rolling mill at Eaton Rapids, Mich., will be 70x107 feet in size and two stories high.

The plant of the Standard Oil Co. at Los Angeles, Cal., has been destroyed by fire, the estimated loss being \$100,000.

A dispatch from Wilmington, Del., is to the effect that the Lobdell Car Wheel Co. intends making an addition to its machine shops.

E. C. Carpenter, of Bronxville, N. Y., is interested in the Enameled Iron Sign Co., formed to manufacture signs with \$10,000 capital.

The Hanna Oil Co., recently incorporated in Michigan, will have its principal office at Grand Rapids, Mich. Its capital stock is \$150,000.

The hat factory of John W. Green & Co., at Danbury, Conn., has been damaged by fire to the extent of \$125,000. It employed 400 men.

The Pottsville (Pa.) Board of Trade has been negotiating with Philadelphia parties for the establishment of a tinplate mill in that city.

The Garland Chain Co., of Rankin Station, Pa., has begun work upon a two-story warehouse, which will be used as a finishing department.

A dispatch from Chicago states that the Chicago Hardware Manufacturing Co., at North Chicago, has let contracts for erecting a foundry.

It is reported that Penn Electric Manufacturing Co., of Pittsburg, Pa., will remove its works to Irwin, Pa., where it will employ about sixty men.

A San Diego (Cal.) dispatch is to the effect that Pittsburg parties have been examining sites in that vicinity with the view of building an ore smelter.

The Aultman & Taylor Machine Co., of Mansfield, Ohio, has determined to add a foundry building 106x127 feet, and has let contracts for this work.

Messrs. James Reilly & Co., of New Haven, Conn., it is announced, have secured the contract to construct a \$2,000,000 hotel at Nassau, Bahama Islands.

The Star Corundum Co., of Detroit, will manufacture corundum and stone wheels, with \$10,000 capital. John Heftron, of Detroit, is one of the directors.

John A. Sherman, of Boston, Mass., is president of the Sherman Envelope Co., which is erecting a factory which will produce 1,000,000 envelopes daily.

The Prentice Bros. Co. has been incorporated by V. F. Prentice and others, with \$1,000,000 capital, to manufacture machinery and tools at Worcester, Mass.

It is stated that Messrs. Stanley G. Flagg & Co., of Pottstown, Pa., have secured ten acres of land on which they will erect a branch of their hollowware plant.

Messrs. Roth, McMahon & Co., of Chicago, are reported as interested in a plan to build a cracker factory in that city, which will cost \$100,000 and employ 200 hands.

The Anchor Fence Co. may possibly erect a plant at Memphis, Tenn., and has been examining sites. The company's Western headquarters are at Kansas City, Mo.

The Western Sulphur Co. has been organized for mining purposes, with its offices at Duluth, Minn. F. W. Helmick and H. L. Alworth are interested in the company.

A recent Illinois incorporation is the Pekin Stave Manufacturing Co., with \$50,000 capital stock. It will manufacture woodenware at Pekin, Ill. J. A. Edds may be addressed.

It is stated that the Glen Cove Starch Co., of Glen Cove, N. Y., has made arrangements to rebuild the portions of its plant destroyed by fire, and has let contracts for the buildings.

A dispatch from Danbury, Conn., states that James Marshal, of that city, has secured a plant in Brooklyn, N. Y., where he will make a specialty of manufacturing stiff hats.

William Bauman, of 84 Montgomery street, Jersey City, N. J., is interested in the Laufen Paper Box Machine Co., recently formed to manufacture boxes with \$50,000 capital stock.

The Automatic Sweeper Co., recently organized in Michigan, will have its plant at

Marine City. It intends to manufacture carpet-sweepers. Charles King may be addressed.

A dispatch from New Haven, Conn., states that the Bronson & Townsend Co. has purchased the business of the Bradley, Dann & Carrington Co., dealer in hardware, of that city.

The Acme Electric Lamp Co., which will manufacture lamps at New Brunswick, N. J., has been formed with \$500,000 capital stock by Ralph W. Booth and others of the same city.

The additions to the plant of the Titusville Iron Co., of Titusville, Pa., include a machine shop 420x50 feet and a foundry 180x80 feet. This concern makes a specialty of radiators.

The purpose of the Buffalo Manufacturing Co., recently incorporated, is to manufacture patent water coolers and filters at Buffalo, N. Y. E. A. Bullet, of Buffalo, may be addressed.

The Manhattan Oil Motor Co., of Newark, N. J., writes the Manufacturers' Record that it will utilize kerosene oil as fuel in its motors. G. Waldron Blake, 11 Beaver street, may be addressed.

The proposed addition to the plant of the Deering Harvesting Machine Co., of Chicago, will be 200x280 feet, and will be used for forging purposes. It is stated that contracts have been let.

Ernest Merrick, of No. 1 Montgomery street, Jersey City, N. J., is interested in the Dennison Carriage Motor Co., formed to manufacture engines and electric motors, with \$100,000 capital.

It is stated that the Chicago Steel Post & Tie Co., recently mentioned in the Manufacturers' Record, will have its plant at Porter, Ind., utilizing buildings already constructed at that point.

J. B. Houseman, Jr., of St. Louis, is interested in the Western Railway Equipment Co., which will manufacture rolling stock, etc., at East St. Louis, Ill. The company has \$300,000 capital stock.

The Alexander McDonald Co., recently incorporated in New Jersey, will manufacture monuments, with \$25,000 capital stock. A. R. Baxter, of Trenton, N. J. (862 Centre street), may be addressed.

Messrs. J. B. Solly & Co., of New York, have leased a factory at Danbury, Conn., where they will manufacture soft hats. Mr. John B. Solly, the senior member of the firm, is located at Orange, N. J.

The United Tanners' Glue Co. is the title of a New Jersey corporation with \$500,000 capital to manufacture glue. Chas. E. Hesse, No. 66 Broadway, New York, is one of the directors of the company.

The Harrisburg Foundry & Machine Co., of Harrisburg, Pa., has secured the contract to place four of its engines in the Maryland penitentiary at Baltimore. They will be of 250 horse-power each.

The Fairmount Zinc Co. has been incorporated in Indiana to manufacture sheet zinc, phosphates and fertilizers, with \$25,000 capital stock. S. E. Potter, at Fairmount, Ind., may be addressed.

A contract has been let for a paper mill at Ashland, Wis., which will manufacture manila paper and will cost about \$60,000. Messrs. O'Keefe & Orblison, of Appleton, Wis., are contractors for the work.

It is reported that the Illinois Smelting & Refining Co. has been examining sites at Hartford City, Ind., with the view of removing its plant to that place. The company is now located at Chicago, Ill.

The Currie Wind Mill Co., of Manhattan, Kansas, informs the Manufacturers' Record that it is now preparing plans and specifications for the shops at Kansas City, recently referred to in these columns.

A dispatch from Jersey City, N. J., states that the city authorities have let a contract for the proposed water-works plant, which will have a capacity of 50,000,000 gallons. The city engineer will furnish details.

A recent New Jersey incorporation is the Liondale Dye and Print Works, which will do business at Rockaway, N. J., with \$1,000,000 capital stock. L. M. N. Loewenthal, at Rockaway, may be addressed.

It is reported that Samuel Thomas will be president of the American Linseed Oil Co.,

which, it is stated, will control 85 per cent. of the output in the United States. The company's main offices are in New York.

The Schoen Pressed Steel Co., of Pittsburg, Pa., writes the Manufacturers' Record that the site for its additional works has not as yet been selected. The capacity of the new plant will be forty cars daily.

The W. E. Douley Electric Light & Power Co., recently incorporated in Michigan, will have its principal office at Big Rapids. Its capital stock is \$40,000. Among those interested are J. W. Morton, of Big Rapids.

The Page Woven Wire Fence Co., which has been looking for a site for a new factory near Pittsburg, it is reported, has obtained ten acres at Monessen, Pa., and will erect a plant which will employ 500 hands.

A La Grange (Ind.) dispatch is to the effect that land in the vicinity of this town has been secured by Chicago capitalists for the purpose of erecting a cement factory, which will have a capacity of 500 barrels daily.

It is stated that Frank Goetz, of Hartford, Conn., is preparing to let contracts for a factory for making bread and crackers at South Manchester, Conn. The plant will be capable of producing 2000 loaves of bread hourly.

William S. Halsey and Samuel J. Cooper, of Pittsburg, Pa., are interested in the Pneumatic Crane Co., incorporated with \$5,000,000 capital stock to manufacture pneumatic machinery of different kinds in the city named.

Another beet-sugar manufacturing company has been formed in Michigan under the title of the Bay City Sugar Co., with \$300,000 capital stock. Incorporators include Frank W. Glichrist, of Alpena, and Charles A. Eddy, of Bay City.

The Asphalt Brick Co., of New Castle, Pa., it is reported, has determined to change its location to Toledo, O., where it has secured about twenty acres for its plant for making asphalt bricks. The present capacity will be considerably enlarged.

The New York & New Jersey Warehouse Co., incorporated with \$750,000 capital stock, it is stated will construct a large warehouse for cold storage. E. Trowbridge, vice-president of the Bank of North America, in New York, is one of those interested.

The Chester Manufacturing Co., of Media, Pa., has decided to increase its facilities, and has recently purchased buildings for its plant which will give it greater facilities for manufacturing; it has also increased its capital from \$200,000 to \$500,000.

E. A. Tennis, of Thompsonstown, N. J., is interested in the Automatic Alarm Bell & Sign Co., organized with \$100,000 capital stock to manufacture automatic signs and bells and other devices. The headquarters of the company will be at Philadelphia.

The buildings being erected by Messrs. Frazer & Chalmers, of Chicago, include a machine and erecting shop 319x103 feet, a drawing and office department 209x36 feet and a shipping department 138x56 feet; also a toolroom, stockroom and a perforating shop.

The Pneumatic Despatch Manufacturing Co., which, it is stated, will have its principal offices in Philadelphia, has been incorporated under the laws of West Virginia with a nominal capital. Among those interested is Kenneth E. Stewart, of Philadelphia.

C. A. Howell, of Detroit, is interested in the Finlayson Steam Generator Co., with \$25,000 capital stock, which has recently been incorporated in Michigan. Its principal office will be at Detroit, and it will manufacture generators and other steam appliances.

A dispatch from Providence, R. I., is to the effect that the sale of the Rhode Island Locomotive Works to Joseph Leiter, of Chicago, has been confirmed. It is understood that this plant will be developed into one of the largest, if not the largest, in the United States.

A dispatch from New York states that the Union Tobacco Co. has secured control of the Blackwell-Durham Tobacco Co., of Durham, N. C., the price paid for the stock being \$2,500,000. The Union Tobacco Co. is the one in which the Elkins-Widener syndicate is interested.

The Continental Tobacco Co. has finally been incorporated under the laws of New Jersey with the following officers: President, J. B. Duke; first vice-president, H. I. Drummond; third vice-president, O. Scotten; treasurer, P. Lorillard, Jr., and secretary, David Kellar.

A dispatch from Galesburg, Ill., states that the American Beet Sugar Co. is conferring with business men of that city relative to the construction of a plant which

will cost \$300,000 and utilize 330 tons of beets daily. The Business Men's Club is promoting the matter.

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Petroleum Motor.—A pamphlet has been issued which illustrates and describes the petroleum motor invented by Emil Capitalne (a celebrated engineer of Germany), who has devoted eighteen years to the study and development of the petroleum engine. The Capitalne Oil Motor Co., of 11½ Beaver street, Newark, N. J., can be addressed for further particulars.

Upright Engines.—There has been issued by the Buffalo Forge Co., of Buffalo, N. Y., a folder illustrating the latest developments in the design and construction of horizontal and upright engine types as made by the company. The company's engine made a fine running record at the Omaha Exposition, and a medal and certificate has been received for same.

"The Mechanic."—Such is the title of a monthly journal of mechanics, science and literature issued by the H. B. Smith Machine Co., of Smithville, N. J. This publication was formerly issued during the life of Mr. H. B. Smith, founder of this company's business, and it is now deemed advisable to reissue it each month. Users of woodworking machinery and others are invited to send for a copy.

FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Central of Georgia Bonds.

Relative to the prospects for investors who purchased bonds of the Central of Georgia Railway, the New York News Bureau has the following: "Some experts on bond values regard with favor the Central of Georgia Railway first incomes. This figure is below that at which some of the new common stocks are ruling. The amount of the bonds outstanding is only \$4,000,000, and they are the next lien to the consolidated 5s. The first incomes received 2 per cent. on October 1, and sales as high as 52 were made last year, when only 1½ per cent. interest was paid. The net earnings of the company are increasing, being \$720,488 for the first nine months of this year, a gain of \$44,280 over the corresponding period of 1897. In these circumstances it is considered reasonable to infer that the next payment will be larger than the last. The Central of Georgia is regarded as one of the best pieces of property in the South, and its terminals at Savannah are especially important in view of the growth of that port and the future development of trade with the West Indies."

New Corporations.

It is stated that J. W. Underwood, of Stuttgart, Ark., is considering the opening of a new bank at Beaumont, Texas.

The banking company recently formed at Carthage, N. C., has elected W. W. Mills, president; W. F. Jones, vice-president, and W. M. Hayes, cashier.

The bank recently formed at Pineville, Ky., is to be called the First State Bank of Pineville. C. T. Samuel has been elected president, and George H. Reese, cashier.

The Marion Bank, of Marion, S. C., recently organized, has been commissioned to do business with \$25,000 capital. C. A. Woods and H. C. Graham are among the stockholders.

The Merchants and Miners' Bank, of Scranton, Miss., has been temporarily organized, with W. E. Frederick as president and L. P. Dejean, vice-president. Its capital is to be \$25,000.

New Securities.

Henry Ziegenhein, mayor, will receive bids until December 22 for the issue of \$675,000 worth of 3½ per cent. bonds of St. Louis.

R. Landy, city clerk, will receive bids until December 28 for the issue of \$28,000 worth of electric-light bonds offered by the town of Carthage, Mo.

J. S. Fleming, of Georgetown, Ky., will receive proposals until December 29 for an issue of \$46,000 worth of 4 per cent. road bonds of Scott county.

Messrs. Rudolph Kleybolt & Co., of Cincinnati, have purchased the issue of \$50,000 worth of 4 per cent. turnpike bonds of Clark county, Kentucky.

The town of Gaffney, S. C., will receive bids until January 3 for the proposed issue of \$18,000 in bonds for water-works purposes. A. N. Wood may be addressed.

The county commissioners will receive bids until December 26 for the issue of \$100,000 in 4 per cent. courthouse bonds of Fayette county, Kentucky. They may be addressed at Lexington, Ky.

Dallas county, Alabama, will receive bids until December 21 for an issue of \$65,000 in bridge bonds, being authorized to sell them by the legislature. P. Wood, at Selma, Ala., may be addressed.

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Thomas J. Shryock, State treasurer, may be addressed relative to the issue of \$915,000 in securities which will be sold by the State of Maryland on December 30. They will bear interest at 3½ per cent. Bids will be received at Annapolis, Md., by a board consisting of the governor, comptroller and treasurer.

Dividends and Interest.

The Bank of Donaldsonville, La., has declared a quarterly dividend of 4 per cent.

The Fidelity & Deposit Co. of Baltimore has declared a semi-annual dividend of 5 per cent.

The Northern Central Railway Co. has declared a semi-annual dividend of 4 per cent., which will be paid next month.

The Jonesboro Banking & Trust Co., of Jonesboro, Tenn., has declared a dividend for the year of 6 per cent., not including 1½ per cent. allowed for taxes.

The Ohio Falls Car Works, of Louisville, Ky., has recently declared a dividend of 5 per cent. on its preferred stock and 5 per cent. on its common stock as well.

R. W. Brooks has been elected president of the Bank of Guilford, of Greensboro, N. C.

MANUFACTURERS' RECORD.

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER.

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BALTIMORE, DECEMBER 23, 1898.

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THOMAS P. GRASTY,
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For Southern Advertisement.

Alluding in retrospect to the policy of a large portion of the South in the earlier part of this century, and to the impossibility of that section's escaping its destiny as a manufacturer, the New York Commercial, which is alive to the situation, says:

In the reports which come to us of her exports there still remains strong evidence of her fondness for being the furnisher of raw materials to people abroad, and it is almost painful to note her enormous shipments of iron, which should be manufactured within sight of her own mines into thousands of articles for final consumption among the people of this country. But it is very encouraging to learn that plants for the manufacture of iron and steel products are being rapidly established there, and that something like \$10,000,000 have been invested in this manner in Tennessee and Alabama during the current year. This is as it should be, for with this start on the right path, the diversification of Southern industries will go on, and the producers of the South will be so well distributed in her various fields of production that the great disproportion which has heretofore existed between the home production and consumption of cotton will disappear. Then the South will be better prepared for the great change in the foreign cotton market, which is even now apparent upon the commercial horizon. Instead of consuming but one-third of our cotton crop ourselves, we will consume it all, and the South will no longer be at the mercy of the foreign market with regard to that staple product. This will finally be so with regard to other products also, as, for instance, wheat and corn.

Without forgetting the obvious facts of Southern industrial ambitions and achievements in the period preceding the war between the States, facts which are frequently overlooked in surveys from the standpoint of evolutions of the past fifteen years, it may be said that the opinion of the Commercial is substantially correct. It must be conceded, however, that the enormous exports of Southern raw material are not necessarily a proof of remnants of fondness for that sort of policy. They are the rather an indication that the commercial spirit of the South is exerting itself in direction of greatest profit to the producer of the raw material, while expecting the completion of plants that will be able to consume more of the products of the cotton fields, the forests and the mines than are used that way at present. These cannot be built in a day. The industrial importance of other parts of the country is a growth of nearly a century, twenty years of which meant

partial paralysis of the South's manufacturing power. But there is no reason why the South should not go where Pennsylvania, Minnesota and other producers of raw material go, and why it should not fix the price abroad and in this country of such raw material. On the contrary, there is every reason why the South should open for itself and maintain channels of commerce for its raw material while it is equipping itself with cotton factories, iron and steel works and the establishments wherein will be handled its raw material in more complex movements. Southern raw material for manufactures is one of the best advertisements in the world of Southern manufactures.

Alabama's Opportunity.

The prospects of a constitutional convention for Alabama present an opportunity for that great State to emphasize in a most decided and practical manner its determination to make its future equal to the promise of its resources. Changes that have occurred during the past ten or fifteen years and the advancement now in progress demonstrate that some of the laws and institutions that may have given satisfaction to Southern communities in the past must be modified in one direction or another if great possibilities are to be fully realized. The passage by the Alabama general assembly of a bill providing for a vote upon the question of a convention and the attitude of the representative press of the State upon the question indicate that there the necessary modification of existing organic law is to be attempted.

As a friend of Alabama interested in everything which may conduce to its welfare the Manufacturers' Record suggests that here is presented an opportunity for the cultivation of politics of the highest order, the politics of material good for the State. In the choice of delegates to the convention the guiding consideration should be, not the position of the candidate in regard to questions which furnish the divisions of national parties for presidential and congressional purposes, but his convictions about the present needs of the State and the best methods of advancing its industrial, agricultural and commercial interests, so as to make certain that its immense natural resources shall be developed for the benefit of all its people.

There is no reason why the personnel of the convention should not be representative, not only of the energy and enterprise of Alabama, but also of the progressive, wise and alert spirit of the South. The State is rich in young men full of ambition to place Alabama side by side of such a Commonwealth as Pennsylvania in the industrial race and qualified to exert that ambition upon safe lines if they are not hampered by prejudice or shortsightedness. There are, too, men of middle age and men of even riper years not to be outdone by the youngsters in enterprise and activity, and willing to give their State

what they know from experience, observation and judgment rightfully belongs to it. These are they whom the people should persuade to become members of a convention which promises so much. Should they dominate its proceedings its results will not disappoint the lofty aspirations of Alabama's far-seeing leaders, and they will embody in a form not subject to wilful or thoughtless change the tendencies already manifested upon which the hopes of the State and for the State are based.

The Mississippi's Control.

After nearly two years' investigation of the subject in all of its phases, the Senate committee on commerce has presented a lengthy report upon the improvement of the Mississippi river. It touches upon several disputed points. It asserts that the committee has no evidence that the destruction of timber near the headwaters of the Mississippi river system tends to promote the floods; it holds the question of the improvement of the Southwest Pass in abeyance until the survey of the Pass has been completed, though the demand by the commerce of the valley for a deeper and broader channel to the sea than is now afforded by the South Pass is recognized, and it concludes that no substantial relief from the floods can be obtained from outlets or from receiving reservoirs, even could the latter be constructed with reasonable expense and without danger. The committee sees relief, however, in the construction of adequate levees. On this point the report says:

From all the evidence taken and considered by your committee, it is evident and manifest that the basins and bottoms along the Mississippi river exposed to the floods of the river can only be protected and preserved from such floods by an ample and complete system of levees from Cairo to the head of the passes. Crevasses and inundations, resulting in extensive loss of life and property, are liable to occur during all floods so long as the system is incomplete. The burden of completing the levee system is too great for local and State authority. Your committee is of the opinion that the federal government should continue, as it has since 1882, to aid in the great task of controlling and repressing the floods in the river.

The committee estimates that a complete enclosure of all the river basins will require from three to four feet higher levees in Louisiana, and from four to six feet higher ones in the Yazoo stretch, and that the cost of completing the levee system from the head of the St. Francis basin to the head of the passes will be between \$18,000,000 and \$20,000,000.

This recommendation of prompt and thorough completion of the levees is the basis for united efforts by persons interested in the commerce of the river, those threatened and hampered by the possibility or actuality of overflow, and those who know that no vast area of this country can be under a disadvantage without the whole country ultimately feeling its effects. Already local and private authority has spent \$34,310,795 and federal authority

\$13,320,708 in levee construction and repairs. Much of that immense sum, nearly \$50,000,000, has been expended in repairing damages that would not have occurred could an adequate system of levees have been systematically and quickly constructed years ago. Moreover, the losses to agriculture by flood and to commerce from the same cause, and the drain in the shape of relief funds, have not been felt by the people of the lower Mississippi valley alone. The expenditures and losses have long been a burden upon the whole country. It has been demonstrated that the existing plan of levee work is not sufficiently effective. The whole country should, therefore, be willing for federal activity greater than ever for the control of the great waterway.

Aids to Commerce.

There has been a great deal of criticism in recent years of the American consular system. The criticisms have not been without reason in many cases, and the adoption of suggestions made in that way has had a beneficial effect in increasing the value of the work done by our commercial representatives abroad. There has been in the last two or three years a marked improvement in this service coincident with the publication by the bureau of foreign commerce of the Department of State of the advance sheets of consular reports. At the time when these sheets appeared in monthly form many of them were of no practical value at all, and the values of the practical ones were diminished by their tardy appearance. Now there is hardly a day which does not produce a report bearing directly upon the efforts of business men in this country to extend their trade, and containing valuable hints. This change has been noted abroad, and no better tribute to its value could be paid, perhaps, than the attention attracted in Germany. The Berlin correspondent of the Manufacturers' Record speaks of this as follows:

The Frankfurter Zeitung calls attention to a German consular publication just issued containing reports from the year 1897! One report covers the period April, 1896-97! As over against this delay the Zeitung places the promptness with which our reports are issued, saying that "It would never occur to the Americans to issue in November, 1898, a consular report reaching only down to April, 1897." Then the paper gives several examples of the way our consuls work, as follows: "On June 10 a German ship is plundered by pirates at Maracaibo; on June 20 the American consul sends off a report describing how a ship must be equipped in order to escape pirates. A measure in the internal policy of Switzerland is reported by the consul on the day following its publication. The consul in Venezuela observes that there is an excellent opening there for American coal and writes a report—concise, one page long, but containing all the necessary information—and the American producer is quickly and accurately informed. Cannot our consuls do this?" The paper admits that our reports do not have the "scientific exhaustiveness" of the German reports, but "in practical value they are twice and three times as good as ours."

Of course, as long as changes in the consular service are likely to happen

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"Southland Homes."—Under the title "Southland Homes" there has been issued by Messrs. D. J. Rose & Bro., of Raleigh, N. C., a collection of thirty designs and plans for Southern homes, costing from \$800 to \$10,000, with miscellaneous information. The homes treated are, however, not adapted for the South alone. The book sells for \$1.

Sawing Machinery.—Catalogue "B" of Mr. H. L. Beach, of Montrose, Pa., contains illustrated accounts of the sawing machinery made under Mr. Beach's patents. An experience of twenty-five years has enabled this manufacturer to place on the market a line of machines and tools best adapted to the class of work for which they are designed.

Petroleum Motor.—A pamphlet has been issued which illustrates and describes the petroleum motor invented by Emil Capitaine (a celebrated engineer of Germany), who has devoted eighteen years to the study and development of the petroleum engine. The Capitaine Oil Motor Co., of 11½ Beaver street, Newark, N. J., can be addressed for further particulars.

Upright Engines.—There has been issued by the Buffalo Forge Co., of Buffalo, N. Y., a folder illustrating the latest developments in the design and construction of horizontal and upright engine types as made by the company. The company's engine made a fine running record at the Omaha Exposition, and a medal and certificate has been received for same.

"The Mechanic."—Such is the title of a monthly journal of mechanics, science and literature issued by the H. B. Smith Machine Co., of Smithville, N. J. This publication was formerly issued during the life of Mr. H. B. Smith, founder of this company's business, and it is now deemed advisable to reissue it each month. Users of woodworking machinery and others are invited to send for a copy.

FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Central of Georgia Bonds.

Relative to the prospects for investors who purchased bonds of the Central of Georgia Railway, the New York News-Bureau has the following: "Some experts on bond values regard with favor the Central of Georgia Railway first incomes. This figure is below that at which some of the new common stocks are ruling. The amount of the bonds outstanding is only \$4,000,000, and they are the next lien to the consolidated 5s. The first incomes received 2 per cent. on October 1, and sales as high as 52 were made last year, when only 1½ per cent. interest was paid. The net earnings of the company are increasing, being \$720,488 for the first nine months of this year, a gain of \$44,280 over the corresponding period of 1897. In these circumstances it is considered reasonable to infer that the next payment will be larger than the last. The Central of Georgia is regarded as one of the best pieces of property in the South, and its terminals at Savannah are especially important in view of the growth of that port and the future development of trade with the West Indies."

New Corporations.

It is stated that J. W. Underwood, of Stuttgart, Ark., is considering the opening of a new bank at Beaumont, Texas.

The banking company recently formed at Carthage, N. C., has elected W. W. Mills, president; W. F. Jones, vice-president, and W. M. Hayes, cashier.

The bank recently formed at Pineville, Ky., is to be called the First State Bank of Pineville. C. T. Samuel has been elected president, and George H. Reese, cashier.

The Marion Bank, of Marion, S. C., recently organized, has been commissioned to do business with \$25,000 capital. C. A. Woods and H. C. Graham are among the stockholders.

The Merchants and Miners' Bank, of Scranton, Miss., has been temporarily organized, with W. E. Frederick as president and L. P. Dejean, vice-president. Its capital is to be \$25,000.

New Securities.

Henry Ziegenhein, mayor, will receive bids until December 22 for the issue of \$675,000 worth of 3½ per cent. bonds of St. Louis.

R. Lundy, city clerk, will receive bids until December 28 for the issue of \$28,000 worth of electric-light bonds offered by the town of Carthage, Mo.

J. S. Fleming, of Georgetown, Ky., will receive proposals until December 29 for an issue of \$46,000 worth of 4 per cent. road bonds of Scott county.

Messrs. Rudolph Kleybolt & Co., of Cincinnati, have purchased the issue of \$50,000 worth of 4 per cent. turnpike bonds of Clark county, Kentucky.

The town of Gaffney, S. C., will receive bids until January 3 for the proposed issue of \$18,000 in bonds for water-works purposes. A. N. Wood may be addressed.

The county commissioners will receive bids until December 26 for the issue of \$100,000 in 4 per cent. courthouse bonds of Fayette county, Kentucky. They may be addressed at Lexington, Ky.

Dallas county, Alabama, will receive bids until December 21 for an issue of \$65,000 in bridge bonds, being authorized to sell them by the legislature. P. Wood, at Selma, Ala., may be addressed.

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Thomas J. Shryock, State treasurer, may be addressed relative to the issue of \$915,000 in securities which will be sold by the State of Maryland on December 30. They will bear interest at 3½ per cent. Bids will be received at Annapolis, Md., by a board consisting of the governor, comptroller and treasurer.

Dividends and Interest.

The Bank of Donaldsonville, La., has declared a quarterly dividend of 4 per cent.

The Fidelity & Deposit Co. of Baltimore has declared a semi-annual dividend of 5 per cent.

The Northern Central Railway Co. has declared a semi-annual dividend of 4 per cent., which will be paid next month.

The Jonesboro Banking & Trust Co., of Jonesboro, Tenn., has declared a dividend for the year of 6 per cent., not including 1½ per cent. allowed for taxes.

The Ohio Falls Car Works, of Louisville, Ky., has recently declared a dividend of 5 per cent. on its preferred stock and 5 per cent. on its common stock as well.

R. W. Brooks has been elected president of the Bank of Guilford, of Greensboro, N. C.

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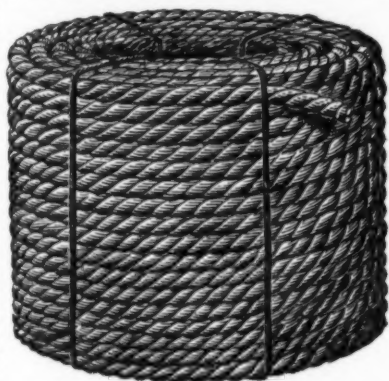
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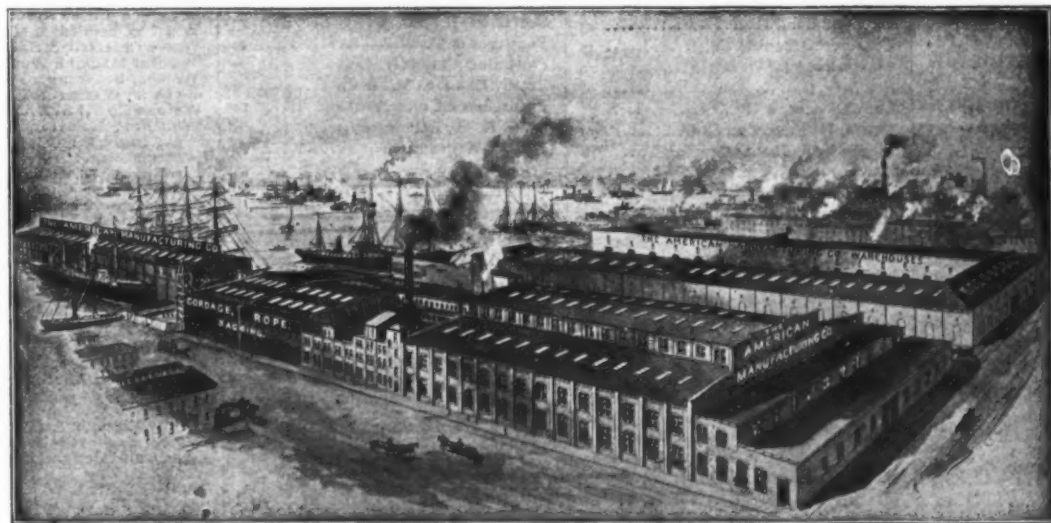
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		Etting, Edward J. 24	Lawrence, W. W., & Co. 20	Powhatan Clay Mfg. Co. 23	
		Eureka Fire Hose Co. 11	Lea Mfg. Co. 39	Pray Chas. A. M., & Co. 6	
		Everson, B. M. 25	Leffel, James, & Co. 35	Pratt Chuck Co. 12	
		Excelsior Knitting Mch. Mfg. Co. 30	Lewis, H. F., & Co., Ltd. 39	Pratt, N. P., Laboratory. 6	
		Exchange Banking & Trust Co. 23	Lidgerwood Manufacturing Co. 16	Pratt & Whitney Co. 12	
		F	Link-Belt Engineering Co. 10	Price & Co. 29	
		Fairmount Machine Co. 30	Lombard Iron Wks. & Supply Co. 17	Price & Heald. 28	
		Farquhar, A. B., Co., Limited. 38	Lord Bros. Mfg. Co. 12	Pulsometer Steam Pump Co. 34	
		Farr Telephone Co. 39	Lowell Machine Shop. 30	Q	
		Fay, J. A., & Co. *	Lowell Textile School. †	Queen City Printing Ink Co. 33	
		Featherstone's, John, Sons. 16	Ludlow-Saylor Wire Co. 26	R	
		Fifield Tool Co. 12	Ludlow Valve Mfg. Co. 16	Raker, W. 24	
		Fitz-Hugh & Co. 26	Lumbermen Supply & Equip. Co. 26	Rand Drill Co. 33	
		Foss Gas Engine Co. 15	Lyons Machinery Co. 24	Rawson Electric Co. 39	
		Foss Mfg. Co. 36	M	Record Printing House. 36	
		Fort Wayne Electric Corporation. 39	Magnolia Metal Co. 20	Reid, Thorburn. 6	
		Fossick Co., T. L. 6	Main Belting Co. 6	Remington Machine Co. 16	
		Freese, E. M., & Co. *	Makepeace, C. R., & Co. 6	Rhoads, J. E., & Sons. 11	
		French, Saml. H., & Co. 25	Manly, Clement. 25	Richmond Electrical Works. 39	
		Frick Co. 16, 25	Marion Steam Shovel Co. 2	Riley, John F., Machine Works. 25	
		Fritsch, Arthur, Fdy. & Mch. Co. 36	Martin, E. S. 25	Robertson, Jas., Mfg. Co. 36	
		Froehling, Dr. Henry. 6	Maryland Casualty Co. 21	Robinson, J. M., & Co. 12	
		Fuel Economizer Co. *	Maryland Cement Co. 6	Robinson, Wm. C., & Son. 18	
		Fulton Iron & Engine Works. 9	Maryland Mfg. & Construction Co. 38	Robinson & Orr. 26	
		G	Maryland Trust Co. 21	Rochester Lamp Co. 23	
		Galt, John, & Sons. 27	Mason Machine Works. 30	Roe Stephens Mfg. Co. 18	
		Gandy Belting Co. 11	Mason Regulator Co. 18	Rose, D. J., & Bro. 6	
		Gardner Governor Co. 35	McClave, Brooks & Co. 15	Roth Bros. & Co. 39	
		Garrett, C. S., & Son. 27	McConway & Torley Co. 13	Royal Bag Mfg. Co. †	
		Geddings, Dr. 24	McCoy, Joseph F., Co. 9	Ruger, J. W. Mfg. Co. 15	
		General Electric Co. 38	McGowan, John H., Co. 35	Russell & Co. 37	
		General Fire Extinguisher Co. 6	McKenna, David. †	S	
		Gilbert, C. M., & Co. 6	McLain, L. D. 24	Saco & Pettie Machine Shops. 31	
		Ginsburg, R. L., & Sons. 26	McLauchlan & Stone. 37	Saunders, D., Sons. 13	
		Golden's Foundry & Machine Co. 10	Mecklenburg Iron Works. 15	Schieren, Chas., & Co. 11	
		Goodsell Packing Co. 18			

Ads. marked thus * appear every other week.
 Ads. marked thus † appear in first issue of each month.
 Ads. marked thus ‡ appear in second issue of each month.
 Ads. marked thus § not in this issue.

PROPOSALS.

U. S. ENGINEER OFFICE, Custom House, Charleston, S. C., December 10th, 1898.—Sealed proposals for removing old and furnishing and placing new pumping engine on dredge "Charleston," in this harbor, will be received here until 12 o'clock noon January 10th, 1899, and then opened. Information furnished on application.

STATE OF MARYLAND.
EXECUTIVE DEPARTMENT.
ANNAPOLIS, November 21, 1898.
SALE OF STATE'S INTEREST IN THE CHESAPEAKE AND OHIO CANAL.

In execution of the power and authority conferred upon the Board of Public Works by the constitution and by the act of 1892, chapter 310, and in pursuance of a resolution passed by the Board, notice is hereby given that SEALED PROPOSALS ARE INVITED FOR THE PURCHASE OF THE ENTIRE INTEREST OF THE STATE IN THE CHESAPEAKE AND OHIO CANAL COMPANY AND ALL ITS PROPERTY AND WORKS OF EVERY DESCRIPTION, both as creditor and stockholder, free and clear of the judgments and claims duly proven and certified under the act of 1896, chapter 136½, which will be paid and discharged by the Board out of the bid. Such proposals may be made at any time prior to 12 o'clock noon on TUESDAY, February 7, 1899, and must be transmitted to the Office of the Board at Annapolis. They will be opened publicly at noon on that day in the Executive Chamber. No bid will be received unless accompanied by a satisfactory bond in the penalty of one hundred thousand dollars conditioned for the prompt payment of the price, if accepted. Under the express provisions of the act authority is reserved to reject any and all bids. By order of the Board.

RICHARD DALLAM,
Secretary of the Board of Public Works.

SEWERS—AIKEN, S. C.

SEALED PROPOSALS for furnishing all material and constructing a system of small pipe sewers with a filtration plant, will be received by the Mayor and Council of the City of Aiken, S. C., until 12 o'clock noon of the 18th of January, 1899, and then opened. Plans may be seen at the office of the Mayor, and specifications will be furnished upon application to him.

A certified check for \$250, made payable to J. R. Jordan, Treasurer, must accompany each as a guarantee that the bidder will execute the required contract after his bid has been accepted. The city reserves the right to reject any or all bids.

W. B. WOODWARD, Mayor.
N. WILSON DAVIS, Engineer.

NOTICE TO CONTRACTORS.

The Building Committee for the Auditorium at Charleston, S. C., invite sealed proposals for the erection and completion of the same, agreeable to the plans and specifications prepared by Architect Frank P. Milburn, of Charlotte, N. C. Plans will be on file on and after December 13, 1898, at the office of the City Surveyor, Charleston, S. C., and at the Architect's office. Bids will be received at the office of the City Surveyor until 1 o'clock P. M. on December 23, 1898. Contractors will file with their bids a certified check for five hundred dollars (\$500), made payable to Sam'l Lapham, Chairman, as evidence if their bid is accepted they will enter into a contract at once and give an acceptable bond in the sum of ten thousand dollars (\$10,000) for the faithful performance of the contract. Each contractor will state in his bid the time of the completion of the building. The committee reserve the right to reject any and all bids.

SAM'L LAPHAM, Chairman,
Auditorium Com. of Council, Charleston, S. C.
Charleston, S. C., Nov. 26, 1898.

NOTICE TO CONTRACTORS.

The Apalachian Land & Lumber Co. will receive bids in writing at their office, in Apalachia, Cherokee County, N. C., for cutting and logging thirty-five thousand (35,000) to fifty thousand (50,000) feet of logs per day to their tramway skids, distance not to exceed one and one-half (1½) miles. Bids may be for cutting and logging in one or separate bids, or either, and must be accompanied by sufficient bond for faithful performance of work. Bids to be opened January 2d, 1899. Work to begin January 15th, 1899.

The Apalachian Land & Lumber Co. reserve the right to reject any or all bids.

APALACHIAN LAND & LUMBER CO.

Apalachia, Cherokee Co., N. C.

On line of A., K. & N. Railroad.

HELP WANTED.

Advertisements under this head will be inserted hereafter at the rate of one cent a word for each insertion.

WANTED—Travelling salesman acquainted with woolen and cotton mill supplies in the South and West. State age, experience and salary expected. Address SALESMAN, care Manufacturers' Record

SITUATIONS WANTED.

Advertisements under this head will be inserted hereafter at the rate of one cent a word for each insertion.

WANTED—By January first, position as manager or superintendent of coal property. Fifteen years' practical experience. Best references given. Address J., care Manufacturers' Record, Baltimore.

THE CORNELL
GAS and Gasoline Engines

1 TO 50 H. P.

2½ Actual Horse Power \$140.

10 per cent. Discount for Cash.

Write for Prices and Catalogue on larger sizes.

Coal Handling Machinery Co.

78-80 Pratt Street,

CHICAGO, ILL.

CHARLESTON, S. C.

Is showing great Commercial Development.

For Sale—Good Dividend-Paying Investment Securities, also Residences, Building Lots, Farms, Manufacturing and Hotel Sites.

An ideal city for a HOME. Full of historic interest. Cost of living is cheap and climate delightful. Educational facilities are unsurpassed.

Garden produce of farms near Charleston is shipped to Northern and Eastern markets at good profits.

Exchange Banking & Trust Company,
CHARLESTON, S. C.

D. F. TIEMANN & CO.

Paint & Color Manufacturers

NEW YORK.

Snow White Zinc, Window Blind Green
and X. L. Black.

To Brokers.

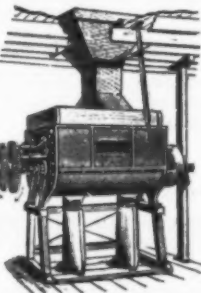
Do you own a farm? The question is pertinent because a great many brokers even in the cities, and more largely of course in the towns, are owners of farm property. In many cases it is an incumbrance instead of a profitable asset. Or even if it yields a revenue this might be made larger. If you have any such interest as this in farming, stock raising, fruit growing, or any agricultural pursuit, don't you think you might find some valuable and helpful suggestions and ideas in a high-class periodical of Southern agriculture, such as the Southern Farm Magazine? It is only a dollar a year. Don't you want it? Published by Manufacturers' Record Publishing Co., Baltimore.

96 W. Water St., SYRACUSE, N. Y.

Hard Plaster, Cement, Paint, &c.

W. D. DUNNING.

THE BROUGHTON
DRY MIXER


The Boomer & Boschert
KNUCKLE JOINT

PRESS
For Baling Cloth, Paper, Yarn, &c.
Or for any other purpose requiring great pressure.
BOOMER & BOSCHERT PRESS CO.
386 W. Water St., Syracuse, N. Y.



GENUINE TRINIDAD ASPHALT

THE STANDARD PAVEMENT OF AMERICA.

ASPHALT PAVEMENTS

Enhance the Value of Property One-Third.

DURABLE HEALTHFUL NOISELESS

20,000,000 square yards laid in eighteen years.

For plans and estimates apply to

THE BARBER ASPHALT PAVING COMPANY,
General Office, 11 Broadway, New York.

A Giant
among
Lamps.

The most powerful lamp yet devised for mill or factory use or wherever a demand exists for more light than can be supplied by our No. 2 Lamp, the Rochester Tubular. It gives a light of

300 Candle Power
and

Will Not Blow Out
in the most exposed locations.

PRICE, \$10.00 EACH.
(Less in quantities).

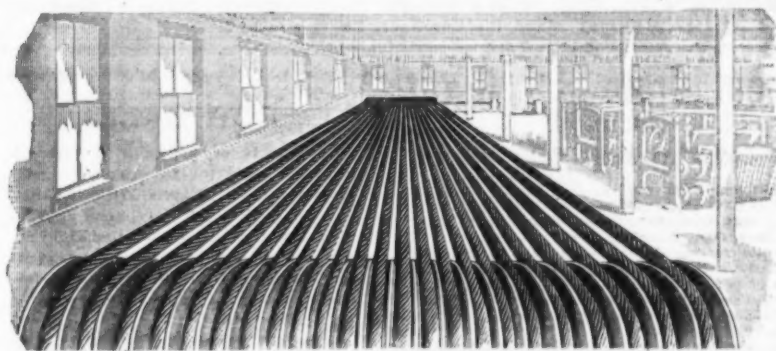
Send for circulars stating requirements.

We make lamps for every purpose.

The Rochester Lamp Co.

38 Park Place and 33 Barclay Street,

... NEW YORK



Rope for Rope Driving and Hoisting.

The special brand of Rope we make, sold under the Trade name of "Stevodore," is sold with the positive understanding that it will do more work in proportion to its cost than any rope on the market—no exception whatever.

Catalogue No. 6811, just issued, covers the subject of Rope Driving thoroughly, besides containing useful data for engineers not published elsewhere. It is free to those interested.

Please address the works direct.

C. W. HUNT CO., 3 Van St., West New Brighton, N. Y.

SILVER
GRAY
BRICKS

Something New!

Artistic and beautiful. Perfect solid color and velvet finish. Not affected by weather. Harmonize with all other colors. Write for samples and prices.

POWHATAN CLAY MFG. CO.
RICHMOND, VA.

NEW YORK OFFICE: Townsend Bldg., 1123 Broadway.

SPECIAL Advertisements OF GENERAL Interest. OPPORTUNITIES FOR INVESTORS.

The Mill Man

Will find it to His Advantage

to now Consider the Question of Locating
his Factory on the line of the

Southern Railway

Incomparably the Leading System in the South.

IT RUNS THROUGH Virginia, North Carolina,
South Carolina, Georgia, Alabama, Mississippi,
Tennessee and Kentucky.

And Gives the Greatest Variety of Openings and
Opportunities for all Classes of Factories.

The Advantages of Raw Material, Labor, Cheap Sites, Cheap
Building, Good Markets and Low Taxation (in some cases no
taxation for a series of years) make regions along the **SOUTHERN
RAILWAY** the best in the United States for Profitable Industries.

Permit us to show you what we have to offer.

Correspondence confidential.

M. V. RICHARDS,

Land and Industrial Agent, Southern Railway Co.

Washington, D. C.

THE COLUMBIA WATER POWER CO., COLUMBIA, S. C.

.....Offers for sale.....

UNLIMITED ELECTRIC POWER

In large or small units for manufacturing purposes. Columbia is in the centre of the cotton producing country. Low freight rates to all points. An ideal manufacturing location.
GEORGE WALLACE, General Manager, Boston Office, 53 State St., Room 608.
WM. C. HAWKINS, Managing Engineer, Columbia, S. C.

Patent Grate Bar Right

FOR SALE.

New England and Western States for Sale.

Big income from royalty. One county in North Carolina pays \$1,500 per year. Wanted manufacturing agents in every State to work on royalty. One hundred per cent. profit to manufacturers. Salesmen on commission or on lease as agent for specified territory. Big profit to business men. Saves 20 per cent. fuel.
Yorkville Roller Mills, Yorkville, S. C.: "They are great savers of fuel and give perfect satisfaction in every particular."
Geo. A. Gray and R. C. G. Love, of Gastonia, N. C.: "Works better than you claimed."
Particulars on application to

EARL & WILSON, Gastonia, N. C.

FOR SALE.

Up-to-date Wheel Factory

In one of the best Southern cities. 3 railroads. Capacity 150 sets of wheels per day. 10,000 finished spokes per day. Best of material right at door at cord-wood prices. Address

P. O. BOX L,
Meridian, Miss.

EDWARD J. ETING, IRON & STEEL,

Land Title Bldg., Broad & Chestnut Sts., Philadelphia, Pa.
Storage Yard—Old Navy Yard.

AGENT
The Turner Engineering Co.
TURNER BOILERS.

AGENT
UNION MINING CO.
MFRS. OF
"Mt. Savage" Fire Brick.

REPRESENTING
Matthew Addy & Co.
PIG IRON.

AGENT
Dayton Coal & Iron Co.
LTD.
PIG IRON.

FOR SALE.

Cane roots or umbrella handles, all kinds of wood in any quantity. Briar roots for pipes. Laurel, Willow, Canes, etc., for rustic work. Dogwood, Persimmon, and all kinds of small timbers.

Shuttle Blocks, Picker Sticks and agents for Owen's Mammoth Cherry Trees, finest on earth for fruit or shade trees. Write for prices.

CHERRY MOUNTAIN SUPPLY CO.
ELLENBORO, N. C.

Red Cedar,

A Large Amount For Sale.

Address
T. C. STRIBLING,
Corsicana, Texas.

WANTED.

A well-established Manufacturers' Agent on Commission, in the chief cities of the Southern States, to place White Lead and Paints with manufacturers and the wholesale trade. None but strictly A1 persons need apply. Address

WHITE LEAD,
Care Manufacturers' Record.

PAINT MACHINERY MILLS, MIXERS,
CAN FILLERS, &C.
Low prices, large assortment. Write for particulars.
LYONS MACHINERY CO.,
Station B., No. 61, Cincinnati, O.

FOR SALE!

Works of the Phosphate Mining Co.,
Limited.

Under order of the United States Circuit Court
for the District of South Carolina.

The valuable piece of property, being the works of the Phosphate Mining Co., Limited, generally called Brotherhood's, situated about 1 1/4 miles from Port Royal, S. C., consisting of about 24 acres, more or less. Having a river frontage on Battery Creek of 971 feet, with fine wharves, etc. Convenient for loading ocean steamers (have from this point carried down steamers loaded to 21 ft 6 in.) The Port Royal & Augusta Railroad passes through the property, and has suitable switch conveniently located.

On property is fine large open shed some 240 ft. by 70 ft., brick piers, with three railroad tracks overhead. Other desirable warehouse buildings with overhead railroad trestles from wharves, boiler house, etc. Desirable dwelling houses and out houses. Fine artesian well and large brick cisterns.

A most desirable site for Cotton Mill, Manufacturing, Warehouse purposes, Ocean Shipments. For particulars apply to

F. BROTHERHOOD, Receiver,
1513 E. North Ave. BALTIMORE, MD.

INDUSTRIES WANTED.

The Business Men's Association of Owensboro, Ky., want manufacturers that contemplate changing or are seeking a new location to write them.

Owensboro, Ky., is in the centre of rich coal fields and timber lands, cheap fuel and cheap raw material.

Three railroads and the Ohio River affords transportation unequalled.

Manufacturers are exempt from municipal taxation for five years. Most desirable location in the South.

Address J. W. CARTER, Sec'y,
Business Men's Association, OWENSBORO, KY.

Coal and Lime.

The undersigned has discovered a new vein of coal four feet thick, immediately above a bed of first-class limestone one hundred and fifty feet thick, on a good railroad near here, and wishes to meet with a gentleman with four thousand dollars capital, who would take for that sum one-half interest in the property, and assist in developing the same. For full particulars apply to

R. P. PEARSON,
Civil Engineer and Surveyor,
PARSONS, W. VA.

FOR SALE.

Over 23,000,000 Acres Timber and Mineral
Lands, and Stumpage.

32 pp. timber and mineral catalogue free, explains Southern timber and mineral lands, location, transportation, size tracts, quantity, kind and price; loans made. W. H. CRAWFORD & CO., Southern Colonizers, Real Estate and Loan Brokers, 323 1/2 Union St., Nashville, Tenn., U. S. A.

INCORPORATE YOUR BUSINESS

Under the Laws of West Virginia.

Most liberal laws of any State and costs less; no personal liability; non-assessable stock; industrial enterprises organized; by-laws for first meeting; books on management of corporations; stock certificates and seals furnished. All cheaper and better than elsewhere. Write me before getting charter elsewhere. D. S. GUTHERIE, Box 848, Charleston, W. Va.

WANTED.

\$5,000 to \$10,000

for one year. Will pay 10 per cent. interest, and mortgage our plant to secure the loan.

WILLIS-WHITAKER LUMBER CO.
BLOOMSBURG, TEXAS.

FACTORY BUILDING FOR SALE AT FLORENCE, ALA.

TWO STORY BRICK building suitable for factory purposes. Will sell at low price and on liberal terms. Address for particulars, National Fertilizer Co., Nashville, Tenn.

TO LEASE.

Plant of West Monroe Lumber Co.

SAW, SHINGLE and PLANING MILLS.

For information address

CAPT. L. D. McLAIN, Prest.
MONROE, LA.

CHEAP STEAM POWER

FURNISHED

IN ANY AMOUNT DESIRED.

The Big Saw Mill at Alamogordo will undertake to burn all its waste under boilers, selling power to manufacturers practically as

Low as Water Power.

Negotiation Solicited. Apply to

ALAMOGORDO IMPROVEMENT CO.

Alamogordo, New Mexico.

For Sale or Lease.

The Westmoreland Company, of Richmond, Virginia, offers for Sale or Lease, Thirty-five Acres of Land on the Northern Boundary of the City of Richmond.

This land lies at the junction of the R. F. & P. Rail Road and the Belt Line Rail Road—the former bounding it on the east and the latter on the south, and by them it has Rail Road connection by the R. F. & P. Rail Road north to Washington—the Chesapeake & Ohio Rail Road to Chicago and St. Louis—the Southern Rail Road to Atlanta and New Orleans—and the Coast Line to Charleston and Savannah.

The raw material is deposited on the lot and the manufactured is hauled thence over the entire county.

It is an ideal location for a Stock Yard, an Abattoir, a Foundry or a Manufactory of Agricultural Implements.

Favorable terms and long credit—Apply to

BRADLEY T. JOHNSTON,

Pres. Westmoreland Co.

AMELIA C. H. VIRGINIA.

FOR SALE OR RENT.

Owen Paper Co.'s Property, Housatonic, Mass.

Consisting of 20 acres of land; frame mill, 200x40 feet, three stories and basement, fully equipped, with 240 H. P. water power; two boilers, 100 H. P. each; barn, 30x40 feet; lumber shed, 90x20 feet; brick store house, 100x32 feet; 11 dwelling houses; one large boarding house. Plenty of good water. Apply DR. GEDDINGS, on premises.

Party with small capital can purchase all or part interest in

Truck, Barrel, Box and Crate Factory and Shingle Mill in North Carolina.

Material can be had very low. Box stock comes out of slabs. Good local demand for boxes and truck packages.

Address J. A., care Manufacturers' Record.

BOILERS

3 125 H. P. loco. style, 100 lbs steam pressure.
2 100 H. P. loco. style, (Wooten fire boxes).
7 80 to 100 H. P. loco style, 100 lbs steam.
1 80 H. P., horizontal tubular (good as new).
2 50 H. P., Horizontal tubular (fine condition).

Above will be sold, with fittings complete, at bargain prices. Steam pressure guaranteed and policy of insurance furnished.

Poulter & Co., 410 Bullitt Bldg., Philadelphia, Pa.

FOR SALE.

One Fifty Horse-power

Putnam Automatic Engine,

Cylinder 10" x 24" stroke, in good condition. Will sell cheap for cash. For information apply to

DURHAM HOSIERY MILLS,
DURHAM, N. C.

\$5.00

100 Edison-Sperry 9-6-10 Amperes, Single Carbon Arc Lamps, \$5 each Guaranteed as good as new.

The Home Electric Light & Power Co.
ELKHART, IND.

FOR SALE—CHEAP.

One Baldwin Locomotive.

Standard gauge Dinkey. Good as new for second-class price. Apply to

W. S. ALLEN,
SHEFFIELD, ALA.

MACHINERY AND FOUNDRY MEN

Can learn something of interest.

Address W. RAKER, Blue Wing, N. C.

NOTICE OF FORECLOSURE SALE OF THE CAPE FEAR AND YADKIN VALLEY RAILWAY.

Notice is hereby given that pursuant to the decree of foreclosure and sale made and entered by the Circuit Court of the United States for the Eastern District of North Carolina held at the City of Wilmington in the State of North Carolina, on the 31st day of March, 1897, and the Amended and Supplemental decree made and entered on the 1st day of July, 1897, in a certain consolidated cause in equity, pending in said Court, wherein the Farmers' Loan & Trust Company, Trustee, is complainant, and the Cape Fear & Yadkin Valley Railway Company and others are defendants.

We, E. S. Martin and Clement Manly, as Master Commissioners appointed by said decree of March 31st, 1897, for that purpose, shall and will sell, at public auction to the highest bidder, according to the terms and provisions of said decrees at the passenger depot of said Cape Fear & Yadkin Valley Railway Company in the City of Fayetteville, State of North Carolina, on the 29th day of December, 1898, at twelve o'clock noon, the property, rights, privileges, and franchises hereinafter described respectively mentioned in the said decrees, to wit:

FIRST.
All and singular, the entire line of railroad of the said Cape Fear & Yadkin Valley Railway Company, situate, lying, and being in the State of North Carolina, as the same was located and constructed at the date of the execution of the deed of trust or mortgage executed by said Railway Company to the Farmers' Loan and Trust Company, dated the first day of June, 1886, or as the same was thereafter located and constructed, and more particularly described as follows:

That certain railroad in the State of North Carolina, extending from the City of Greensboro to Fayetteville, and from Fayetteville to the boundary line, between the States of North Carolina and South Carolina, where it intersects the same, and also that certain line of railroad, extending from Fayetteville aforesaid to Wilmington, and also that certain line of railroad extending from Greensboro aforesaid to the boundary line between the State of North Carolina and the State of Virginia, at a point near Mount Airy, whether held at the date of the said deed of trust or mortgage, or thereafter constructed; and also all the branch lines belonging to or constructed by said Railway Company, to wit: The "Factory Branch," the "Madison Branch," the "Granite Branch," the "Furnace Branch," the "Aldrich Branch," and the "Buff Quarry Branch," as the same were constructed at the date of the deed of trust executed by said Railway Company to the Mercantile Trust and Deposit Company of Baltimore, dated the first day of October, 1889, with all extensions and additional branches thereafter constructed; together with the right of way for said railroad and branches, and also all depots and station grounds and buildings thereon, and also all shops, engine-houses, turn-tables, water stations, warehouses, and lots, gravel pits, stone quarries, and other real estate used in operating said road and its branches, or in connection therewith.

And also all side tracks connected with said railroad or its branches upon the line thereof, as is here described, and any other lands or buildings or structures connected therewith or appurtenant thereto, owned at the respective dates of said deeds of trust, or thereafter acquired; together with all rolling stock (except as hereinafter mentioned), floating and on-car equipment, machinery, tools, implements, fuel, and materials owned at the respective dates of the deeds aforesaid, or thereafter acquired for constructing, maintaining, operating, replacing, improving, or repairing the said road or its branches, as herein described, or any part thereof, in or for the business of said railroad.

And together with all the corporate rights, privileges, and franchises of the said Railway Company, possessed at the respective dates of the deeds aforesaid or thereafter acquired, connected therewith or relating to the said railroad and its branches, and the construction, maintenance, use, and enjoyment of the same.

And together with all the estate, right, title, interest, property claim, and demand of every nature and kind whatsoever, including all tolls, incomes, rents, issues, and profits thereof of the said Railway Company, owned and possessed at the respective dates of the deeds aforesaid, or thereafter acquired, connected with or pertaining to the above-described road and its branches, as well as law as in equity, of, in, and to the same and every part and parcel thereof.

And also all the right, title, interest, and property of the Cape Fear & Yadkin Valley Railway Company in the South Carolina Pacific Railway, and the franchises, property, real and personal, used in connection therewith in operating the same; together with all appurtenances of every sort thereto belonging, leased, and conveyed to the said Cape Fear & Yadkin Valley Railway Company, by said South Carolina Pacific Railway Company, by the Indenture of Lease dated the 8th day of January, 1886, for the term of thirty years thereafter, which said lease is recorded in the office of the Register of Mease Conveyances in the town of Bennettsville, County of Marlboro, State of South Carolina, in book 3 of Mortgages of Personal Property, pages 448, et seq., to which said lease reference is hereby made for fuller particulars.

SECOND.
The entire property, described as aforesaid, covered by the deeds of trust or mortgages aforesaid, or either of them, will be sold as a single parcel, and as an entirety, except the rolling-stock hereinafter mentioned. And no bid for the property aforesaid (exclusive of said rolling-stock) will be accepted which does not equal the sum of Two million dollars.

THIRD.
Secondly, and separately from the aforesaid-mentioned property, but at the same time, will be sold all such rolling-stock belonging to said Railway Company, as is not appurtenant to any one of the three Divisions of said Railway Company, mortgaged to the Farmers' Loan and Trust Company aforesaid, a schedule of which will be announced at the time of sale.

The said decrees provide that no bid for the entire property mentioned and described above (exclusive of said rolling stock) shall be received from any person until such person shall have deposited with the Master Commissioners the sum of Thirty Thousand Dollars; and the sum so deposited shall be returned to the person depositing the same if no bid made by him is accepted. But if any bid made by him is accepted, then the amount so deposited shall be held by the Master Commissioners on account of the purchase. Any purchaser hereunder, when the property is struck off to him, shall at once pay to the Master Commissioners on account of his purchase a sufficient sum to make up, together with the amount already deposited by him as aforesaid, the sum of \$200,000, and in the case of the said rolling stock twenty per cent. of the accepted bid. The deposits and payments required shall be made in United States currency, or in such certified drafts, certificates, or checks as may be satisfactory to the Master Commissioners.

It is further provided by said decrees that should such purchaser or purchasers fail to

make such payment at once, the mortgage property and premises struck off to such defaulting purchaser shall be resold, either immediately or at such adjourned day as the Master Commissioners may determine, but in any case without further advertisement, the Court reserving the right to consider such resale either as made on account of the said proposed purchaser or as an original sale; and further that the deposit received from the successful bidder or bidders shall be applied on account of the purchase price, and that such further portions of the purchase price shall be paid in cash as the Court may from time to time direct, the Court reserving the right to resell the premises and property therein directed to be sold upon the failure of the purchaser or purchasers, his, its, or their successors or assigns, to comply within twenty days with any order of the Court in that regard; and that the balance of the purchase price may be paid either in money or in bonds or in overdue coupons secured by the mortgages of The Cape Fear & Yadkin Valley Railway Company to the Farmers' Loan & Trust Company and the Mercantile Trust & Deposit Company of Baltimore, now foreclosed, each such bond and coupon being received for such sum as the holder thereof would be entitled to receive under the distribution ordered in said decrees and according to the priority therein indicated.

It is further provided by said decrees that the purchaser or purchasers shall, as part consideration, and in addition to the sum bid for such property, take the same and receive the deed or deeds therefor upon the express condition that to the extent that the assets or the proceeds of assets of the Receiver's hands shall be insufficient to satisfy the purchaser or purchasers, his or their successors or assigns, shall pay, satisfy, and discharge (a) any unpaid indebtedness and obligations or liabilities which shall have been duly contracted or incurred by the Receiver before delivery of possession of the property sold; and (b) also any unpaid indebtedness or liability contracted or incurred by said defendant railroad company, in the operation of its railroad, payment whereof was provided for in the order in said decree appointing the Receiver, and which is prior in lien or superior in equity to said mortgages, except such as shall be paid and satisfied out of the income of the property in the hands of the Receiver, or other assets upon the Court adjudging the same to be prior in lien or superior in equity to said mortgages, and directing payment thereof; and for the purpose of enforcing the foregoing provisions of the decree, jurisdiction of the cause is retained by the Court, the Court reserving the right to retake and resell the property in case such purchaser or purchasers or his or their successors or assigns, should fail to comply with any order of the Court in respect to the payment of such prior indebtedness or liabilities, within thirty days after service of a copy of such order.

It is also provided in said decrees that the purchaser or purchasers of such property shall also take the same subject to the performance by him or them, or his or their successors or assigns, of all pending contracts in respect thereof, theretofore lawfully made by the Receiver; and that the purchaser or purchasers at any such sale, and his or their successors and assigns, shall have the right, within ninety days after the completion of the sale and delivery of the deed as therein provided, to elect whether or not to assume or adopt any lease or contract sold with the railroad and other property and franchises; and that the purchaser of purchasers, his or their successors or assigns, shall not be held to have assumed any of said leases or contracts which he or they shall so elect not to assume.

It is further ordered by said decrees, that within thirty days from the confirmation of said sale or sales, or such further time as the Court may allow for good cause shown, the purchaser or purchasers of said property shall complete payment of the entire amount or amounts bid to the said Master Commissioners, and that on such payment, and upon complying with all the requirements of said decrees, the said purchaser or purchasers shall be entitled to receive deeds of conveyance thereof from the Master Commissioners and from the other parties to this cause, as therein provided, and shall receive possession of the property so purchased from the parties holding possession of the same.

The said sales will be made subject to the terms, conditions, reservations, and obligations in said decrees contained.

And for further particulars reference is hereby made to the said decrees of said Court. Dated this 25th day of November, 1898.

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Master Comm'rs oners.

Turner McClure & Rolston, 22 William St.,
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Powerful Dredging Machine.

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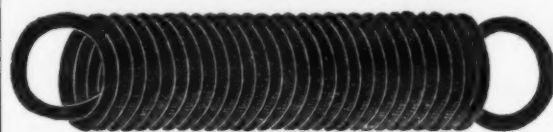
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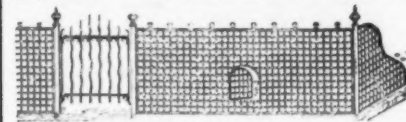
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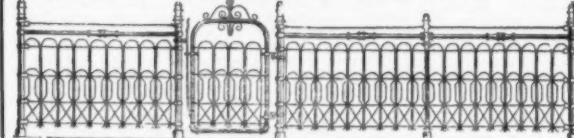
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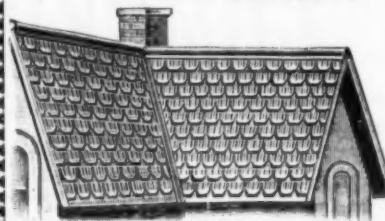
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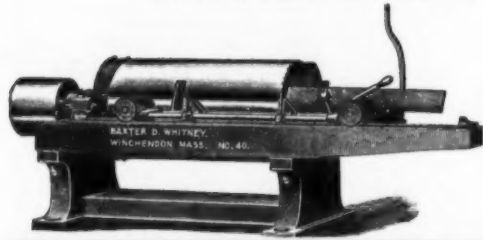


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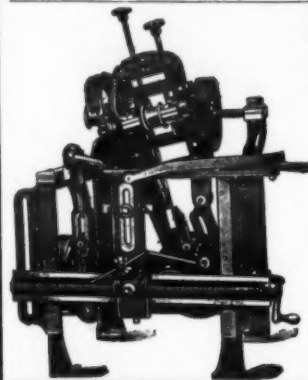
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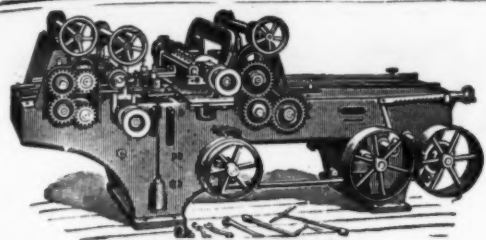
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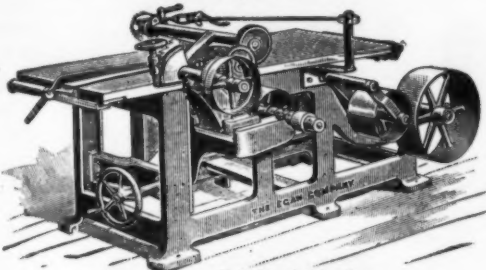
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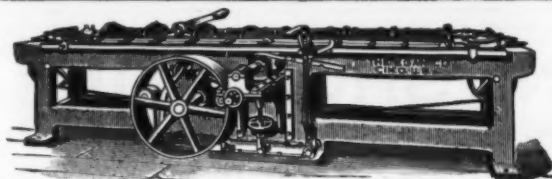
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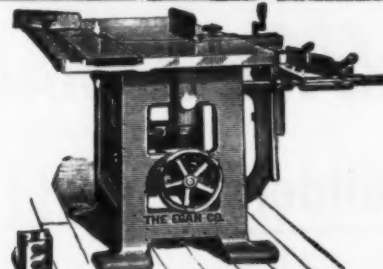
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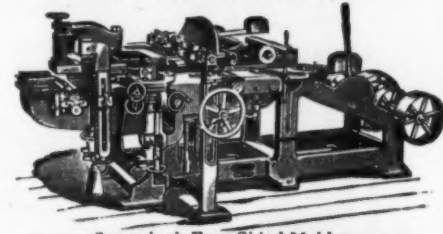
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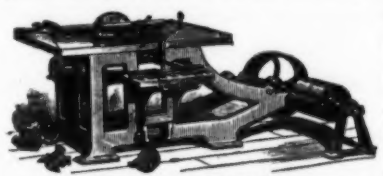
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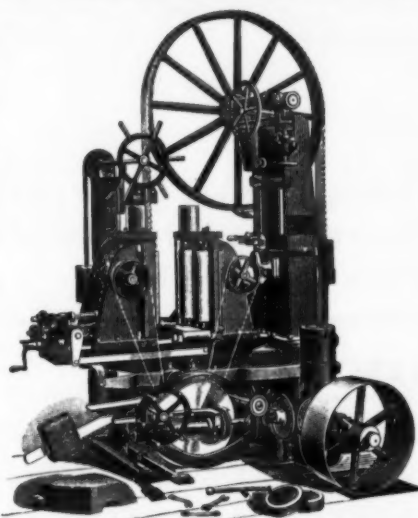
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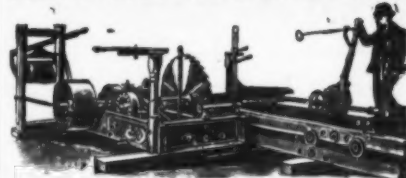
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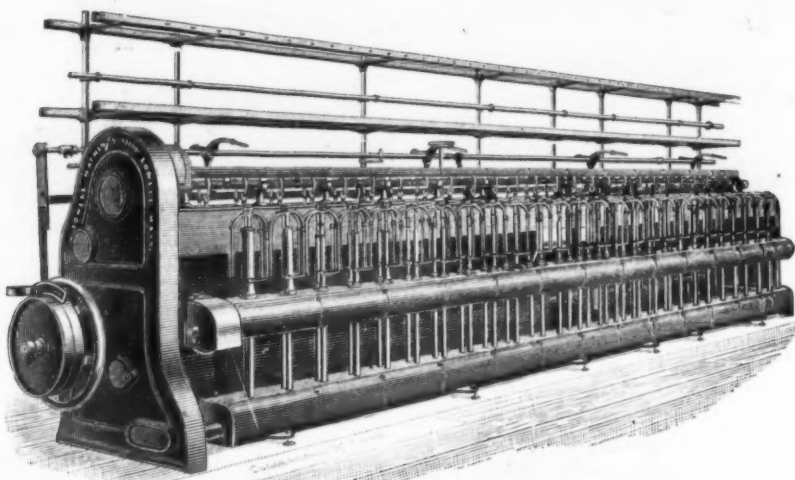
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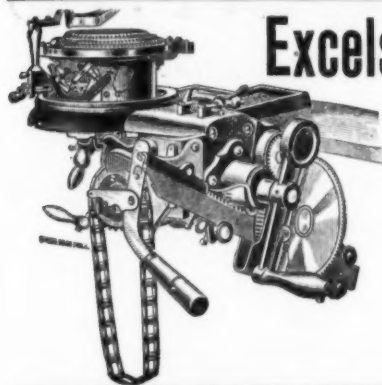
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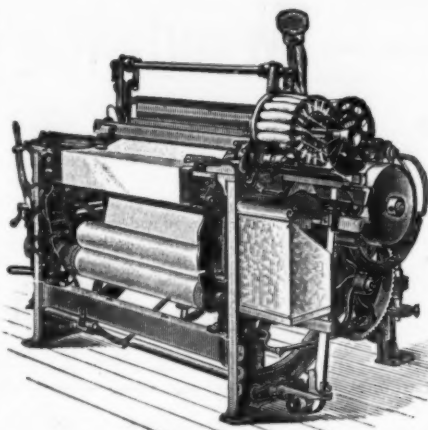
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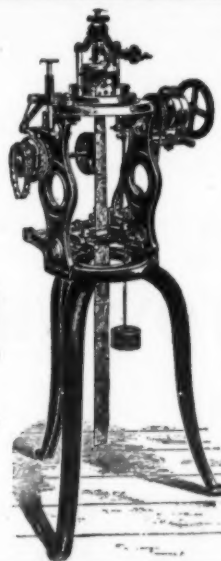
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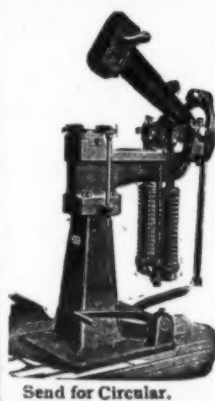
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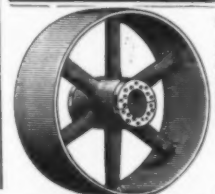
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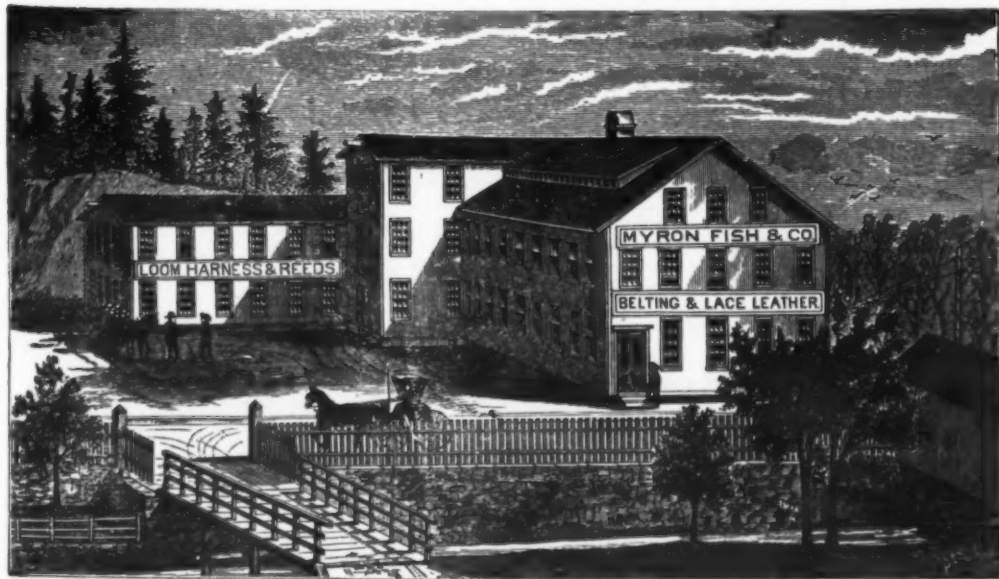
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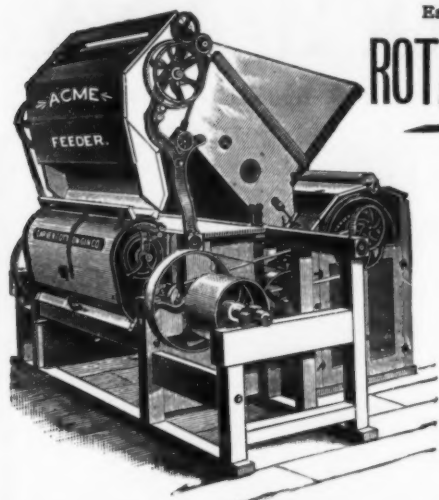
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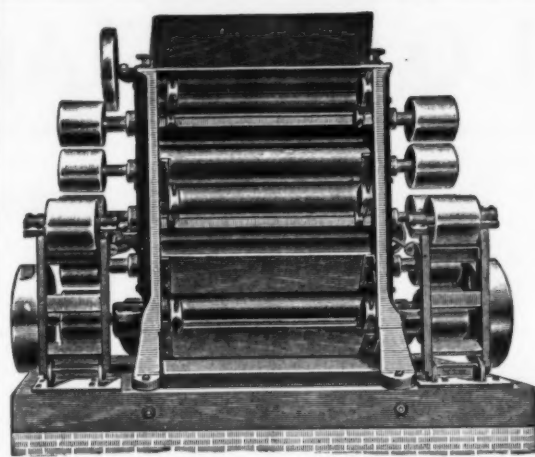
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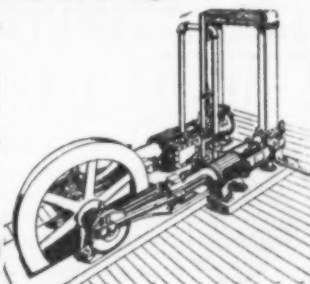
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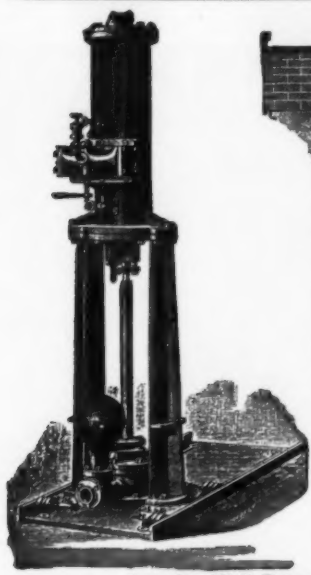
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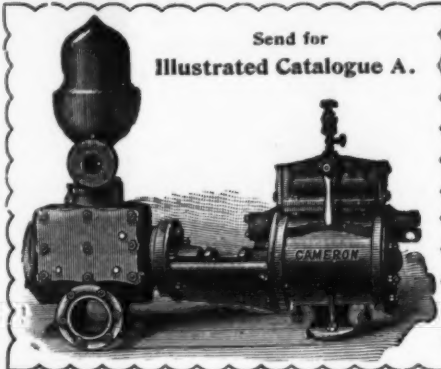
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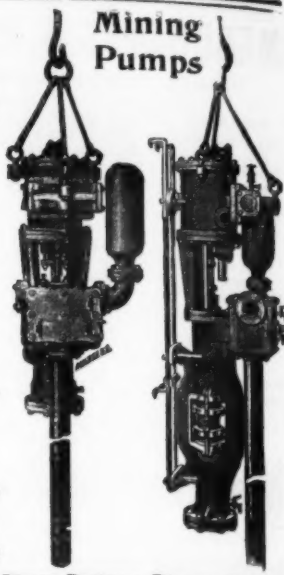
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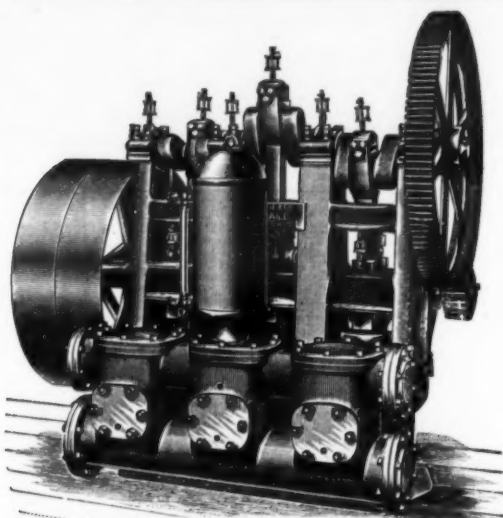
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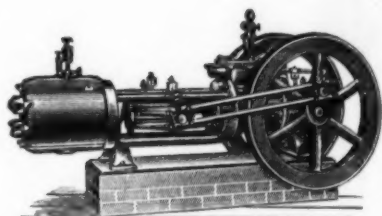
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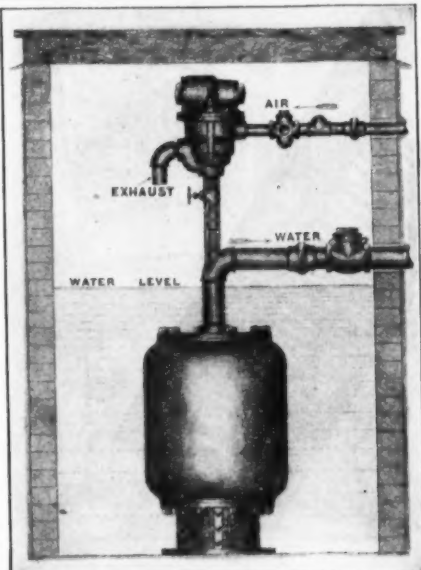
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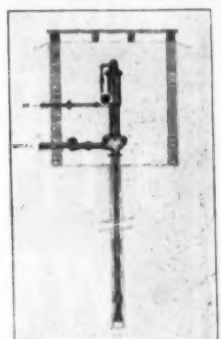
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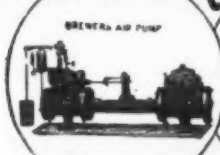


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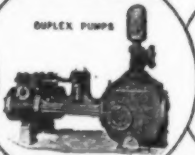
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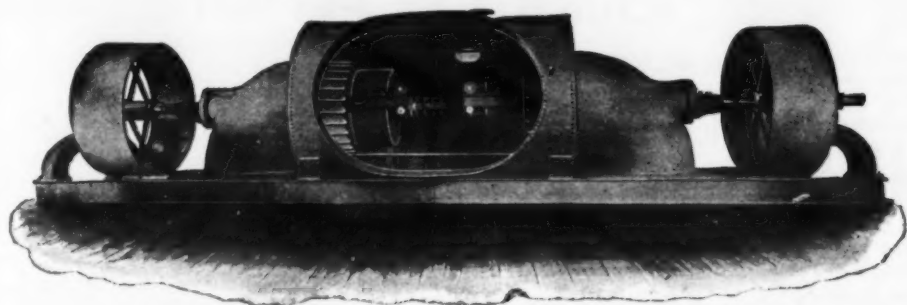
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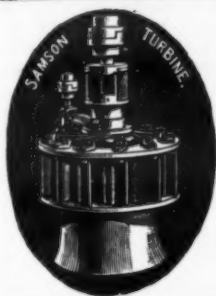
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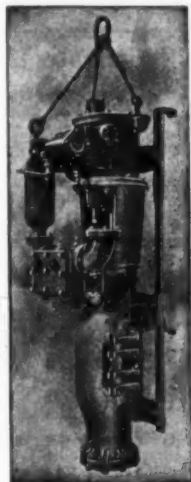
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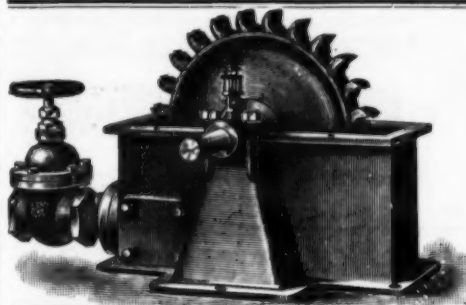
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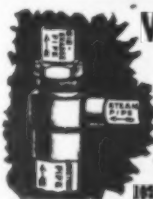
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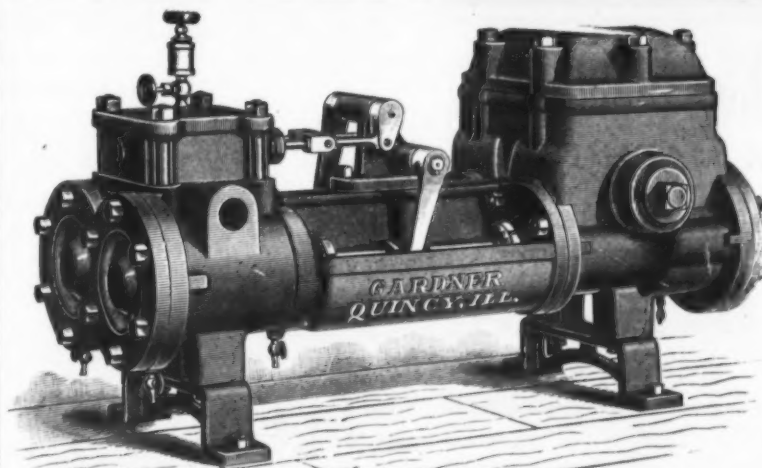
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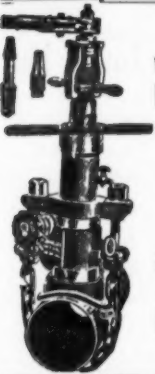
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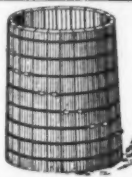
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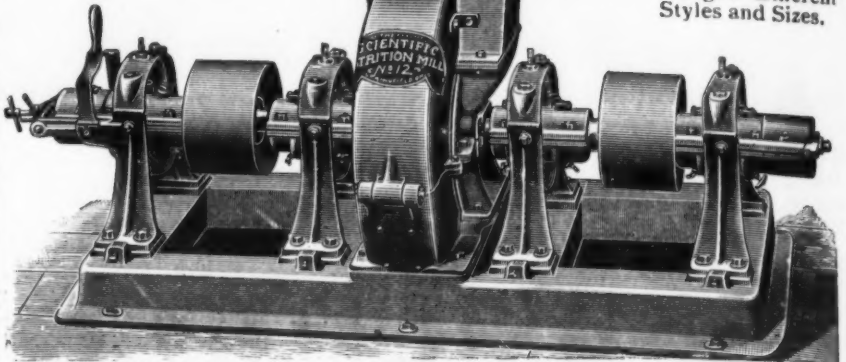
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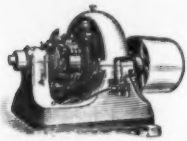
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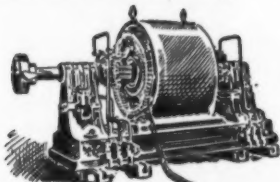
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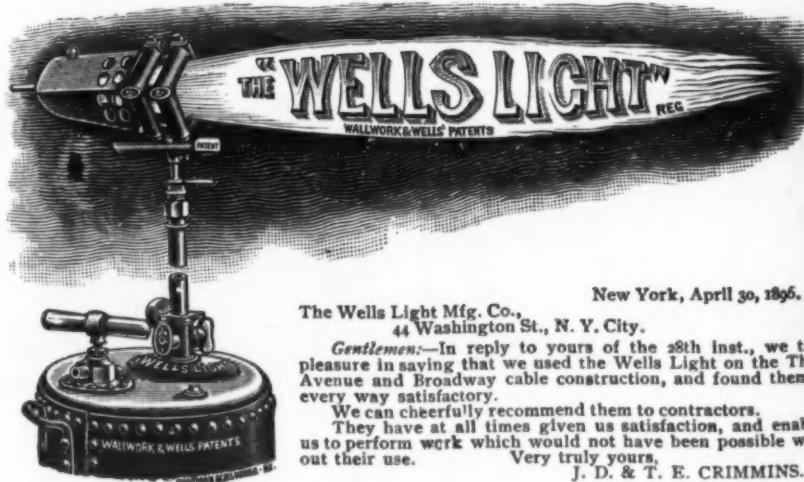
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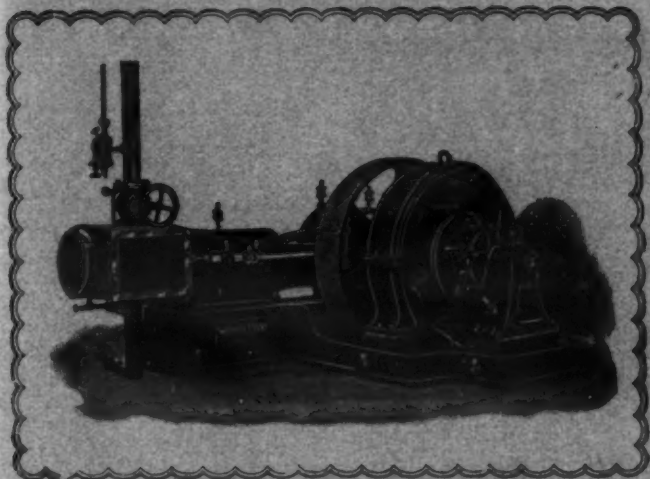
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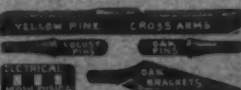
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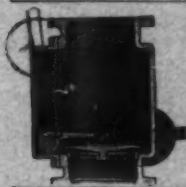
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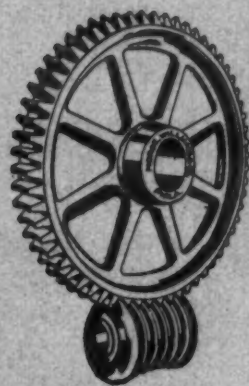
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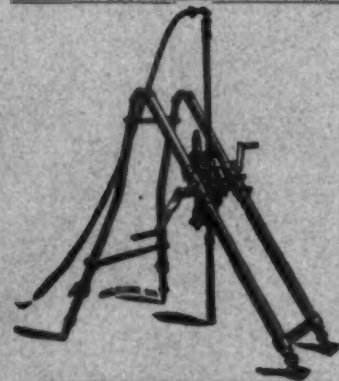
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